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COUNTRY GUIDE

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In This Issue . . .

Dairying on Irrigated Land

Best Sheep Dogs in the World

Wands, Witching, and Water

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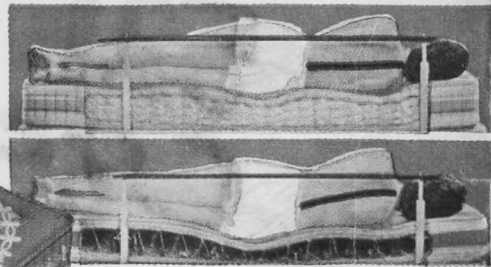
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THE *Country* GUIDE

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MAY, 1955

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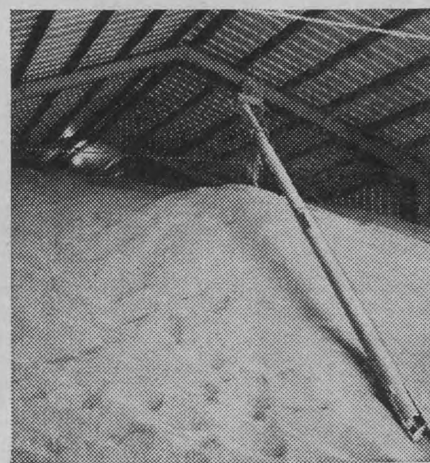
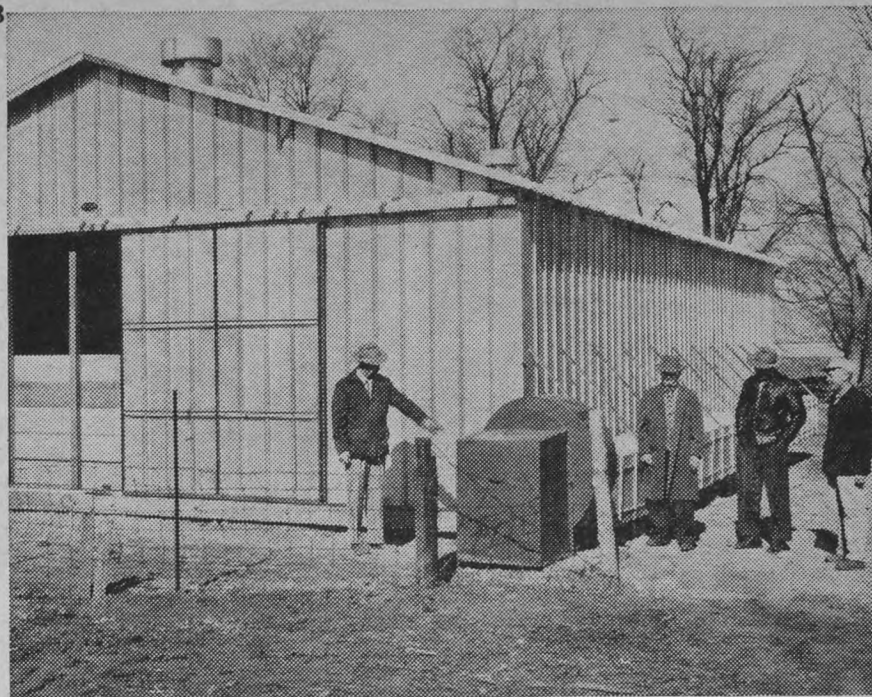
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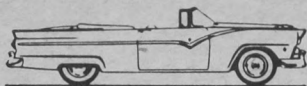
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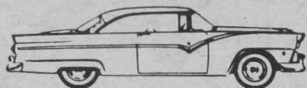
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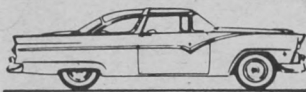
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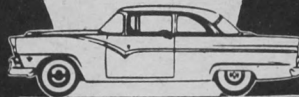
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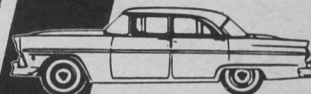
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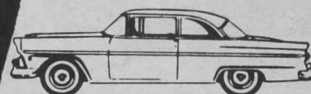
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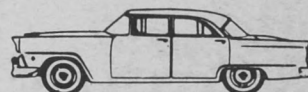
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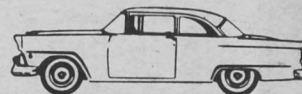
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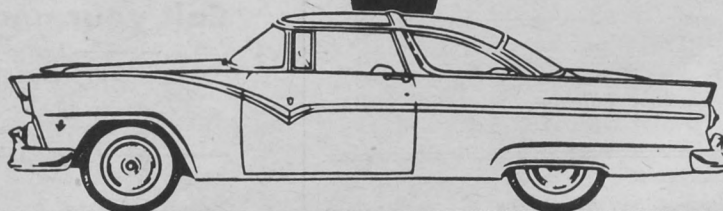
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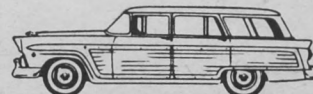
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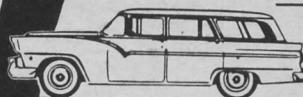
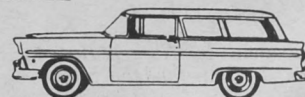
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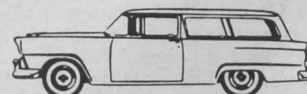
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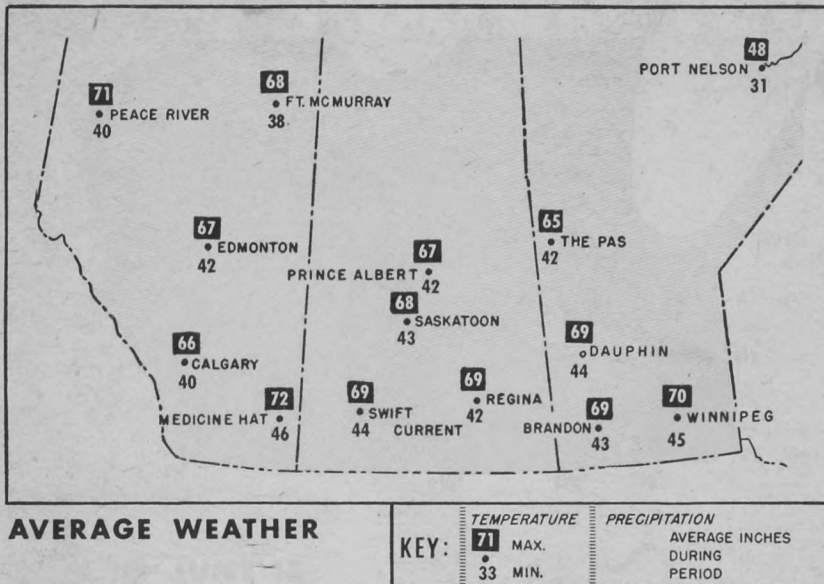
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Prairie Weather

Prepared by DR. IRVING P. KRICK and Staff
for

(Allow a day or two either way in using this forecast. It should be 75 per cent right for your area, but not necessarily for your farm.—ed.)

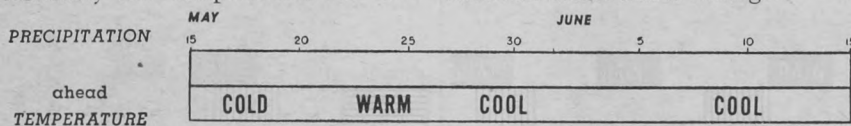


Alberta

Cool, wet weather will predominate during the forecast period in Alberta. The weather will be initially cold, with snow, or rain and snow mixed, over much of the province. Seeding of spring grains and forage crops will be temporarily retarded. A period of relatively warm, dry, weather will follow, however, materially advancing seeding operations. The first two weeks of June will be especially wet with temperatures averaging moderately below normal. Conditions will be somewhat less inclement in the Grande Prairie-Peace River area. Unseasonably low temperatures are not

anticipated and favorable growth is expected of small grains and forage crops. The weather will be especially favorable for peas in the Lethbridge area, but somewhat too cool for optimum growth of corn. Potatoes, sugar beets, and vegetable crops in general will make fair growth, although weed competition will be especially troublesome.

Last year excellent progress was realized in seeding small grains and forage crops in May. June broke cool and wet, however, seriously delaying planting in central Alberta and necessitating substitution of feed grains for wheat on considerable acreage. V

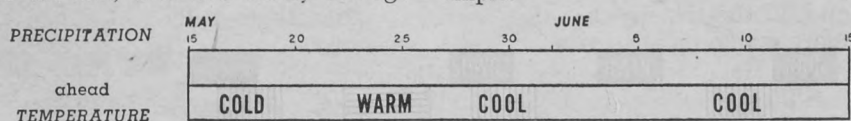


Saskatchewan

Weather in Saskatchewan during the latter half of May and first half of June will be relatively cool. Temperatures will be about two to four degrees below normal. Precipitation is expected between the 15th and 18th of May, falling as snow in central and northern portions. Seeding of small grains and forage crops will be temporarily interrupted. A warming trend with little or no rainfall will follow, enhancing drying of topsoils. Most of the wheat and a considerable portion of the flax, oats and barley acreage

should be in prior to heavy rains in early June. Last year 81 per cent of wheat and about 70 per cent of oats and barley had been seeded by June 4. Wet conditions during the first two weeks of June will impede spraying and dusting operations, but will encourage good germination and growth of crops. Green forage for livestock will be plentiful.

Cool, rainy weather was rather persistent at this time last year. Lesser amounts are expected this year. Soil moisture, however, will be generally ample. V

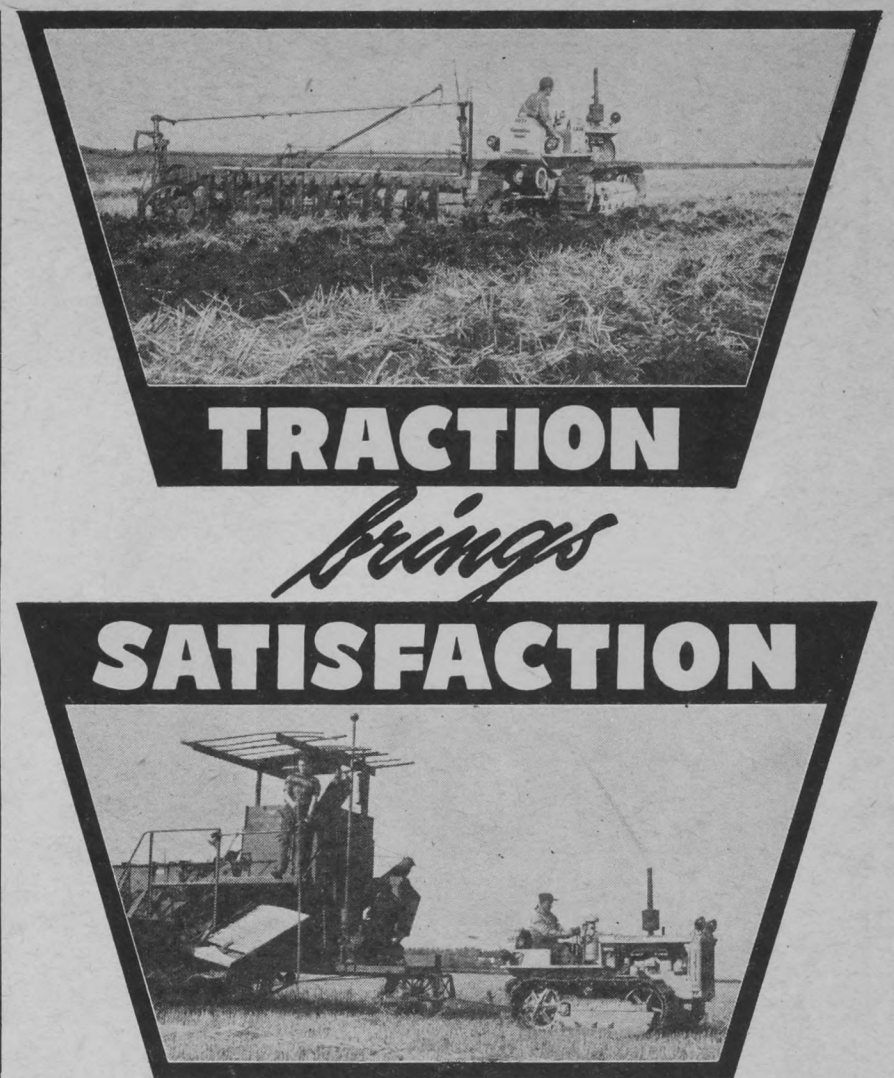
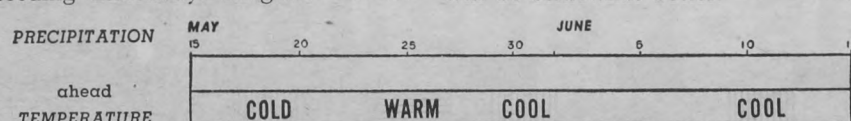


Manitoba

Cool weather is in prospect for Manitoba through June 15. Temperatures will average several degrees below normal, although considerably higher than those experienced at this time last year. Rain or snow is expected between the 16th and 19th, accompanied by freezing temperatures. The anticipated dry weather between May 20 and 28 will advance seeding materially. Progress will be

moderately ahead of last year when 91 per cent of wheat and about 64 per cent of oats and barley were in by June 4. Rather heavy rainfall will occur in early June, prolonging seeding operations. Germination and early growth of small grains and forage crops will be excellent.

Rainfall between April 1 and June 15 averaged over six inches in Manitoba last year. Conditions this year will be somewhat better. V



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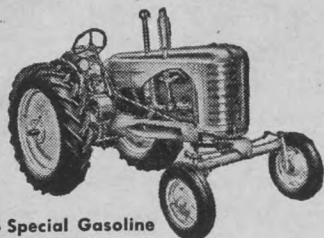
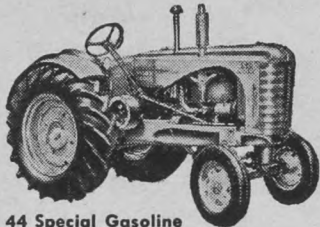
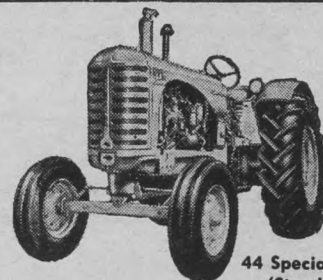
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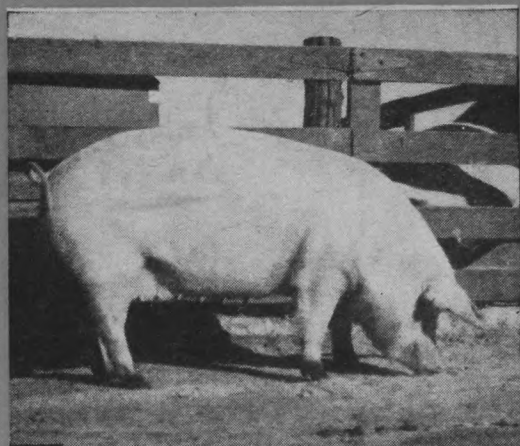
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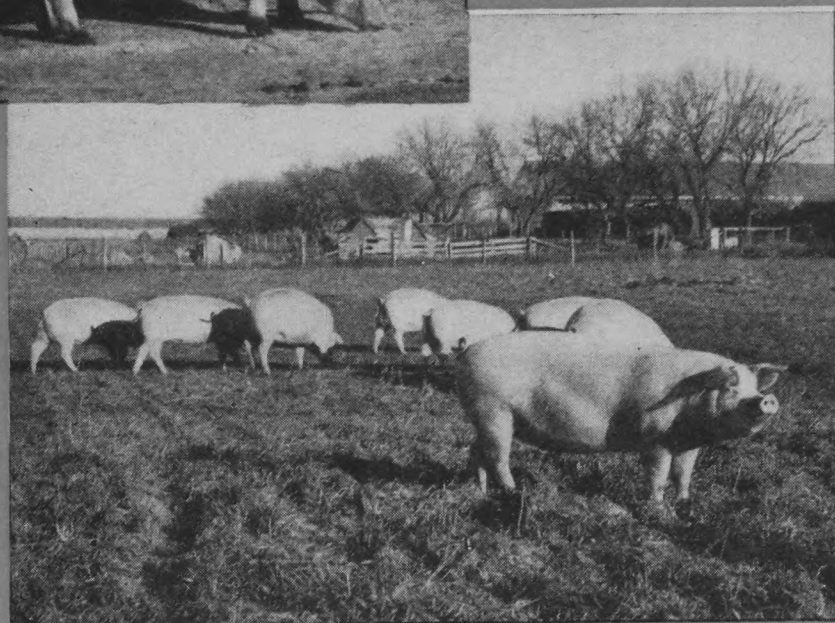
Toronto, Canada

LIMITED



Canada's First New Swine Breed

by D. R. BARON and H. S. FRY



Top: This is a son of the new breed, at Lacombe. Below are some gilts easily distinguishable from the Yorkshire breed by their flop ears.

*Originated at the Lacombe Experimental Station,
it is designed for crossing with the Yorkshire*



H. T. Fredeen and J. G. Stothart look over some gilts of the new breed they have developed in the last eight years.

SPRING had arrived. The warm rays of the sun were melting the blanket of snow that lay over and around the Experimental Station at Lacombe, Alberta. As the representative of The Country Guide slogged his way along the tree-lined and deeply mudded roadway winding past the administration building, a child's pet crow called harshly from a thickly branched spruce.

Inside the Administration Building, the atmosphere was something less than serene. In the office of J. G. (Jack) Stothart, senior animal husbandman, the telephone was ringing more or less constantly.

"What do they look like? When can I get two or three? Can I come over and pick them up now? Will they do as well on my own farm?" These were the questions that had suddenly begun to come by telephone and by letter. They were coming from the surrounding district, from across the province, and even from much more distant points.

A man in big boots knocked at Jack's door, announced that his trailer was ready, and asked simply, "What is the price?"

Canada's first new breed of swine, though yet unnamed, had officially arrived. An announcement from Ottawa on April 20, formally released what had long been known to those who have followed the work in swine breeding begun at the Lacombe station in 1947. Flashed across the country by radio, the details left with listeners were necessarily sketchy. They did however lead to a large number of enquiries.

To all of the enquiries the same answer was given. There were no pigs of the new breed for sale from Lacombe or anywhere else; and it might well be several years before sufficient pigs were available to supply commercial hog producers. The official announcement does not even say that individuals of the new breed will be accepted for registration, though this is to be inferred from the statement that "seven years of thorough testing, selection, and a moderate degree of inbreeding, have produced a new breed of bacon hogs at the

Canada Department of Agriculture Experimental Station, Lacombe, Alberta."

THE characteristics of the new breed, as summarized by Mr. Stothart and Dr. H. T. Fredeen, animal husbandman at the Station, are as follows:

It is white with flop ears, which easily distinguish it from the Yorkshire.

It contains none of the blood of the Yorkshire breed, but as calculated last year, carries an estimated 55 per cent of the blood of the Landrace, 23 per cent of Berkshire and 22 per cent Chester White. It is calculated to be approximately 12 per cent inbred.

From a careful examination of all the tests made at Lacombe, Scott, and Indian Head, its performance promises to be approximately as follows:

In the number of pigs born alive per litter it is about the same as the Yorkshire.

In average birth weight of pigs the new breed is about one half-pound more than for the Yorkshire, and average weaning weight is about five pounds more than for the Yorkshires.

It has a decided advantage over the Yorkshire in rate of maturity.

In average carcass score the two breeds are very similar, but the Yorkshire has a slight advantage.

Crossbreds of the two breeds appear to be equal, or superior to, either breed in all important economic traits.

The temperament of the new breed is good, and the sows are good mothers.

HOW will Canada stand to benefit from a new breed of hogs? Why was a new breed desirable? The story goes back a long way, at least 50 years, to the time when the late Professor George E. Day and a few others were preaching the virtues of the bacon hog to anyone who would listen. Our market then, as during the World War II period, was the British market, for which the Danes had developed a smooth, lean, bacon hog available in regular supply. Canada could not hope to specialize successfully in the lard hog, as did the U.S. corn-

belt states until very recently. It would be unsuitable for our chief outside market.

It was, however, a long struggle. World War I developed and created a demand for Canadian bacon and pork, which proved to be a poor second in point of quality; and it was this that finally aroused the Canadian swine industry to the necessity of doing something about it. After the war, in 1921, a national hog conference was called, and a program of quality improvement involving the introduction of the hog grading system, was decided on. Beginning in 1922, hogs were graded alive and a quality bonus paid to producers. Twelve years later, in 1934, optional rail grading was introduced. After the out-break of World War II and the development of new war-time bacon contracts with Britain, the need for rail grading became very real and it was made compulsory late in 1940.

Meanwhile, from 1922 on, inter-breed tests had proved conclusively that the Yorkshire was superior to other breeds for bacon production. Breeders turned to the Yorkshire rapidly and it was not long until 90 per cent of the registered hogs in Canada were of this breed. The switch paid off, because in 1922 less than 12 per cent of market hogs had achieved Grade A carcass standing, and by 1938 this percentage had been increased to 30.

From 1938 on, little progress was made in western Canada. Between 1939 and 1943 huge surpluses of grain accumulated and many thousands of prairie farmers turned to hogs as a ready market for grain, and because Britain needed the hogs. In 1944 we shipped her over 700 million pounds. Under such circumstances it was difficult to increase the percentage of Grade A Canadian market hogs.

In 1943, the first hybrid corn was grown commercially in the United States. This provided a very striking demonstration of the importance of what is called hybrid vigor. This success soon led to an urgent demand that the same process be applied in livestock breeding. Before long there was a reversion (Please turn to page 84)



In this striking picture two faithful, well-trained British Border Collies are holding a group of sheep. Scene is at Rydal, in Westmorland County.

Best Sheep Dogs in the World

by SYDNEY MOORHOUSE

JUST when man first began to use dogs for gathering and driving sheep has already been the cause of a deal of controversy. We have, of course, adequate proof that there have been sheep dogs of a kind almost as long as there have been shepherds. At the same time, it is almost universally accepted now that the dogs used by the farmer of Uz and his contemporaries of Old Testament times guarded the flocks mainly, and were not called upon to work sheep as does the modern sheep dog.

Today, the guard dog is well represented on the continent of Europe by such breeds as the Pyrenean Mountain dog, the Kuvasz, which is used by sheep farmers in the mountainous districts of central Europe, where wolves are by no means uncommon; and the Owtcher, used in northern Russia, for guarding the reindeer. On the other hand, the dog used on the great sheep runs of North America, Australasia, South Africa, and, of course, the British Isles, is the Border Collie, a breed which, as the name implies, originated on the border hills of England and Scotland.

It may be, of course, that there is a common origin of all the various types of sheep dog. Writing in the eighteenth century, Buffon referred to the English sheep dog as being "ingenious enough to help the shepherd to watch his flocks and herds, strong enough to protect them from ravenous animals, and ferocious enough to keep the thief and robber at a distance.

Long before that, however, Dr. Johannes Caius had published, in 1570, his *Treatise on English*

Dogs, in which he told us: "Our shepherd's dog is not huge, vast, and big, but of indifferent stature, because it has not to deal with the blood-thirsty wolf, since there be none in England." The doctor also went on to give some indication of the development of the sheep dog, and also its use in driving sheep rather than merely guarding them, when he said that "this dog, either at the hearing of his master's voice, or at the wagging of his fist, or at his shrill and hoarse whistling and hissing, bringeth the wandering wethers and straying sheep into the self-same place where his master's will and work is to have them."

From this it may be assumed that the art of working sheep by means of a trained dog originated in Britain, so that it was only a logical sequence that those same islands should develop the breed, the Border Collie, that is now universally accepted as the finest working sheep dog in the world.

THE dogs known by Dr. Caius were most probably akin to the Old English sheep dog, the woolly-coated breed so finely portrayed by Gainsborough in some of his paintings, but rarely seen as a working dog today; and, in a book devoted to the breed by Aubrey Hammond, published in 1908, it is suggested that another ancient strain, the Bearded Collie, has a common origin.

From the last mentioned was probably evolved the Border Collie. James A. Reid, who, as secretary of the International Sheep Dog Society for many years, did more to stimulate interest in the Border Collie than any other man, claims Scotland as the origin and goes on to say: "The collie got into Northern England mainly in the great droving days covering the whole of the eighteenth century and the first half of the nineteenth."

Perhaps the most important step forward took place in 1893, when a farmer named Telfer, in the Otterburn district of Northumberland, mated a dog named Roy, a dog (as his son, Adam, has informed me) with a very "free" eye and frank expression, with Meg, a shy and somewhat self-conscious bitch, and produced Old Hemp, which is regarded as the foundation sire of the modern Border Collie. Before that dog died in 1901, he had sired some 200 puppies. In its turn, the progeny, inter-related as it was, was again bred, so that not only was the type of the present-day shepherd's dog fixed, but within 40 years hardly a collie in regular use was not descended from that great animal.

It was, of course, during the days that Old Hemp was alive that the sheep dog trial began to be developed on modern lines. Actually, the sheep dog trial was the idea of a Welsh squire, the late R. J. Lloyd Price, who promoted the first contest at Bala, North Wales, in 1873. There were ten competitors and the winner was James Thomson, a

Probably originating in Scotland, the famous Border Collie was developed in England, while the world-renowned sheep dog trials began in Wales and were first won by a Scotsman

Scotsman working in Wales and who used a Scottish-bred dog, Tweed. It is interesting to note that the last annual report of the International Sheep Dog Society (whose headquarters are at Southport, in England) contained a reference to James Thomson's widow being "alive, hale, and hearty at 102 years of age," and added, "She is still able to 'tell tales' of those old days and treasures the first cup won, in 1877, by her late husband.

The idea of holding sheep dog trials spread to other parts of Great Britain and then came the formation of the International Sheep Dog Society in 1906, with its objects defined as to "stimulate public interest in the shepherd and his calling and to procure the better management of stock by improving the sheep dog." Although international in name, the original members mostly hailed from north of the Scottish border, with just a few Englishmen from Northumberland. Wales, the home of the sheep dog trial, was not represented, and indeed, 16 years had to pass before any Welshman competed at the Society's championships.

TODAY, the International Sheep Dog Championship (which takes place in September) is one of the most popular pastoral events of the British season, and the results are keenly awaited by enthusiasts in all parts of the world. It provides the most searching test of a collie's skill ever devised. Ten sheep, 800 yards away from the handler, have to be gathered by a run to the right, and brought 400 yards to pass through a gap between two hurdle gates. Then the collie has to leave them and go to the left to bring back another ten sheep. The two flocks are united and

driven over a triangular course, passing through two farther gates on the way.

The sheep are then brought to a ring, 50 feet in diameter, and five of them, indicated by pieces of ribbon tied round their necks, have to be separated from the rest inside the ring before being driven into a six-foot square pen. All this, which involves some three miles of running for the collie, as well as much difficult technical work, has to be accomplished within half an hour.

The utilitarian value of sheep dog trials, like that of the plowing matches, has been the object of some criticism from time to time, but as long as the basic object of using it to provide an assessment of the collie's capacity for everyday work on the sheep runs is retained, there is little to fault. The sheep dog trial is, of course, primarily a test, and like all tests, has to be somewhat modified in its adaptation. But it does provide some means whereby the essentials of a good collie can be ascertained. Many International champions have been every bit as good when working sheep on their own hillsides as on the trials' course.

Remembering this, it is evident that there are two things which lead to the development of either a good hill worker, or a trials' performer, and those two things are breeding and training. I put breeding first, because many of the handlers of today would regard it as even more important than training, when it comes to producing a dog likely to represent its country in the International trials. Granted the inherent capacity to work sheep is there, then practice and training may turn an average worker into a

(Please turn to page 54)



This work in deep snow provides practical work for dogs and master.

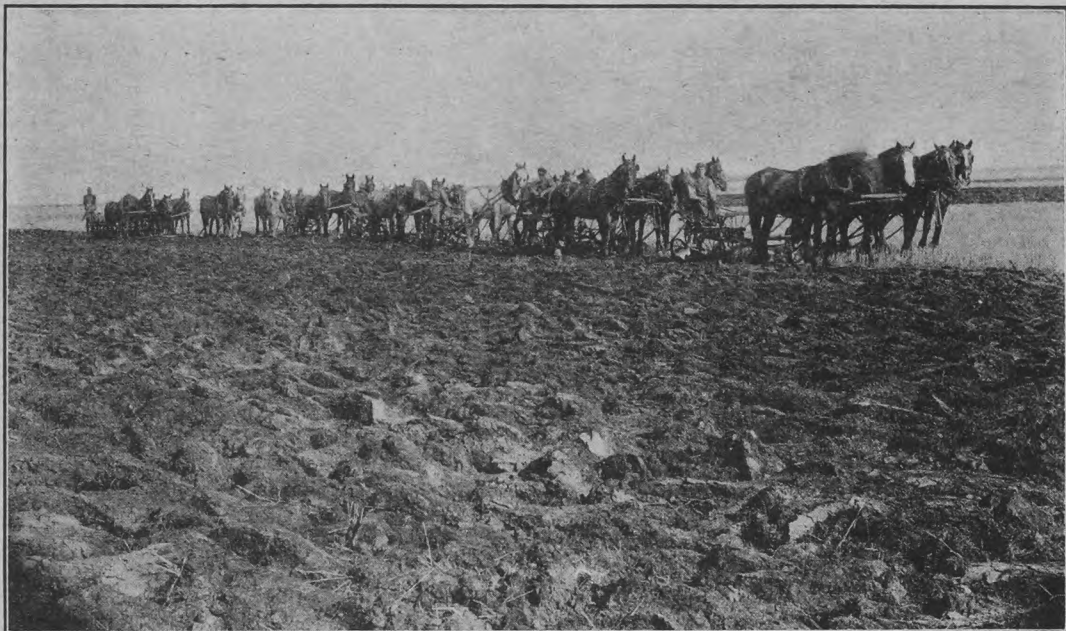


Donald Duck is often used to provide experience for dogs in training.



Like Petain, at Verdun, this lone Border Collie might appear to be saying "They shall not pass." Even the ram is stopped by the firm attitude of the smaller dog.

Machines Have Changed Saskatchewan



Horse outfits that once typified the prairies . . .



. . . gave way to the steel-wheeled gas tractors . . .

WHEN a farmer buys a tractor he doesn't consider that he may be changing the way of life on the prairies. Nor is he. But when farmers all over the prairies buy tractors, combines, trucks and large tillage machinery in unprecedented numbers, and attempt to find land enough to justify it economically, stresses and strains are likely to result. A way of life may be lost, or gained, in the readjustment.

The Saskatchewan Royal Commission on Agriculture and Rural Life knows, as do all prairie residents, that much machinery has been bought in the postwar decade. They have studied the entire problem of mechanization, including its effects on the way of life in rural Saskatchewan, and have produced a comprehensive and weighty report on the general question of mechanization and farm costs, one of a series to be presented to the Saskatchewan government.

Growing out of the Commission investigations are certain conclusions regarding the past, present and future impact of mechanization of Saskatchewan farms. This article provides some brief comment on some of the findings and conclusions.

The trend of farm costs has been upward since the middle 1930's. Taxes, hired labor and interest on

debts all cost relatively less, but the increase in over-all farm costs and their inflexibility has increased the instability of many farms.

The per acre, or per bushel, cost of working a large farm is reduced by mechanization, but smaller farms face the same inflexible costs and do not normally have financial reserves to meet them, if farm prices should fall. In the prairie region of Saskatchewan, a farm with 320 cultivated acres was found to have an average per-acre investment in machinery of \$17.82, as compared with \$14.83 on 640-acre farms and \$9.28 on farms of 2,240 acres. In the park region corresponding investments per acre in machinery were higher: \$25.64 on 370-acre farms, \$14.35 on 1,000-acre units, and \$11.59 where farms averaged 2,300 acres.

The higher per acre investment in machinery on smaller farms has had two clear-cut results. In the first place, it has increased the demand for credit; and in the view of the Commission, the special needs are for credit to enable small farmers to secure additional land, and to help the beginning farmer to gain control of enough land to operate an efficient farm unit. In the second place, many farmers have rented extra land to give themselves an efficient unit, and so have reduced their per-acre investment in machinery, without increasing total investment in land.

Significant size adjustments have taken place. In the ten years between 1941 and 1951, the average number of improved acres per farm increased from 256.5 to 346.3 acres, while the number of farms declined from 138,713 to 112,018. The ability of each operator to work more acres increased the competition for land, but it also

The Royal Commission on Agriculture and Rural Life has scrutinized the mechanization of Saskatchewan farms, and has arrived at some important conclusions

by RALPH HEDLIN

resulted in better balanced, family-size farms. In the period from 1936 to 1951 the rural population of the province declined 30 per cent, and gainfully employed persons on farms declined 32 per cent. Hired labor on farms, however, declined 58 per cent.

Mechanization has not reduced per-acre yields. On the contrary, available evidence indicates that yields have increased over the past 25 years. Better timing of farm operations, and the development of machines that are better suited to do a good job, have combined with better crop varieties, insecticides, herbicides and other advances, to increase yields.

The disappearance of the horse has released land for use for other purposes. The fact that grain is no longer fed to the farm source of power has increased the marketable surplus of feed grain by an estimated \$38 million a year, and has released hay and pasture for feeding to other stock.

Mechanization has increased productivity per person. A worker produces more units (bushels) as well as more dollars, largely due to the fact that better machines make it possible for a farmer to work more land. There is higher long term average productivity per worker on Saskatchewan farms than in any other province, with the single exception of Alberta.

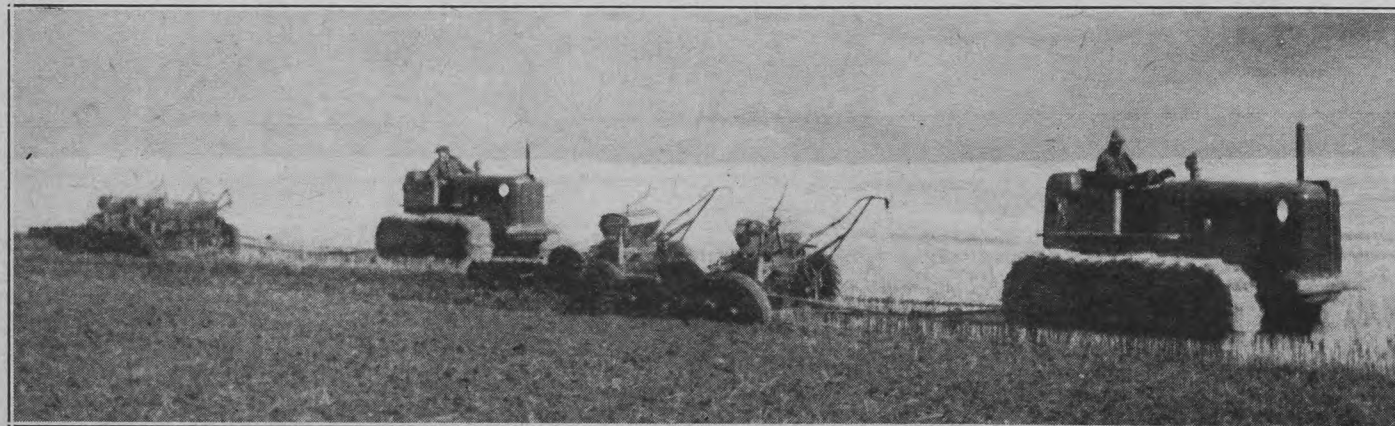
In 1931, the net value of production per person gainfully employed in agriculture was \$108. In 1941 it was up to \$570 and by 1951 it had reached \$4,779. For the same years in Alberta, the corresponding figures were \$347, \$711 and \$4,423, while for Manitoba they were \$130, \$772 and \$3,257.

The income in the prairie region was higher than in the park region in 1951: in productivity per person it was 29 per cent higher, and investment in machinery per worker was 25 per cent higher.

The changeover to tractor farming became significant only in the late 1920's. Mechanization was nicely begun 25 years ago, but drought, depression and war postponed it for 15 years. As most farmers know, the heavy investment in machinery began in 1945, and an almost complete changeover to tractors took place in a short ten years. Combines and trucks were accepted more slowly, but are becoming general on most farms.

A comparison of the numbers of some machines on Saskatchewan farms in 1926 and 1951 will demonstrate this shift. In 1926 there were 26,700 tractors,

(Please turn to page 86)



. . . which, in turn, ushered in the full-scale mechanization of Saskatchewan farms.

Future Farming in Newfoundland

by D. W. CARR



[Nfld. Tourist Devel. Office photo]

Good agricultural land is very limited in Newfoundland and costs are high on small farms of the province.

FOR centuries Newfoundlanders looked mainly to the sea and to fishing for their livelihood. The first big change came in the first quarter of this century when the pulp and paper industry grew up and many people left the fishing, to work in the woods or the pulp mills. During the past ten years there has been another great turning away from the sea and toward the land.

Many Canadians in the other provinces have heard of these changes through reports about new manufacturing industries, new mines and new water power being developed. Not much has been heard of agriculture and its possibilities. Now that the report of the Royal Commission on Agriculture in Newfoundland has been presented, it is possible for the first time to have a clear picture of these farming prospects in the Tenth Province. And if the recent mink development program is any measure of the amount of support future farming may receive there, it will be plain that as much effort may be given to expanding agriculture, as has been given to other industries.

Newfoundland farming has, of course, many serious handicaps, especially as farming is known in western Canada. For example, most of the soil was pushed off the Island into the sea by glaciers during the Ice Age, about 8,000 years ago. Some new topsoil has developed since that time, especially in the forested areas, but much of this new soil has also been consumed by repeated forest fires over the past 75 years or more. The result is that the land in many places is too barren to grow even grass, and it seems likely to remain barren until organic matter is replaced in the topsoil. This condition will be overcome in time, if the present excellent forest fire protection service is maintained. For the foreseeable future, however, the land suitable for cultivation is both scarce and widely scattered in small pockets. Much of it is too far from road or railway to be used for farm land. Even where it is close to roads the land is mostly very infertile and poor in quality.

The Newfoundland climate, on the other hand, is usually too cool in summer for many crops, and though there seems to be enough rainfall, a shortage of sunshine is common. Because of these disadvantages, certain kinds of farming such as feed grain cropping and livestock grazing are made more hazardous and less profitable. In addition to these handicaps of soil and climate, the land, which is usually heavily burdened with stones and trees,

requires a large investment in land clearing and soil improvement, to prepare it for cultivation.

Because of this large outlay, most of the land taken up by settlers in Newfoundland has never been cleared for cultivation. Some farms have been abandoned, while others are occupied, but idle. Since there is no land tax in Newfoundland, leaving it idle does not cost anything. Another problem is that many farmers do not have title to their land. This is partly because the forefathers of present owners were not permitted to have title, and partly because of a habit of obtaining land by squatter's rights. Very few have troubled to take title, even though the period of possession has since given them rights of ownership. Without title, such land cannot be used as security for a loan, nor can it be bought by a neighboring farmer who needs to enlarge his small farm.

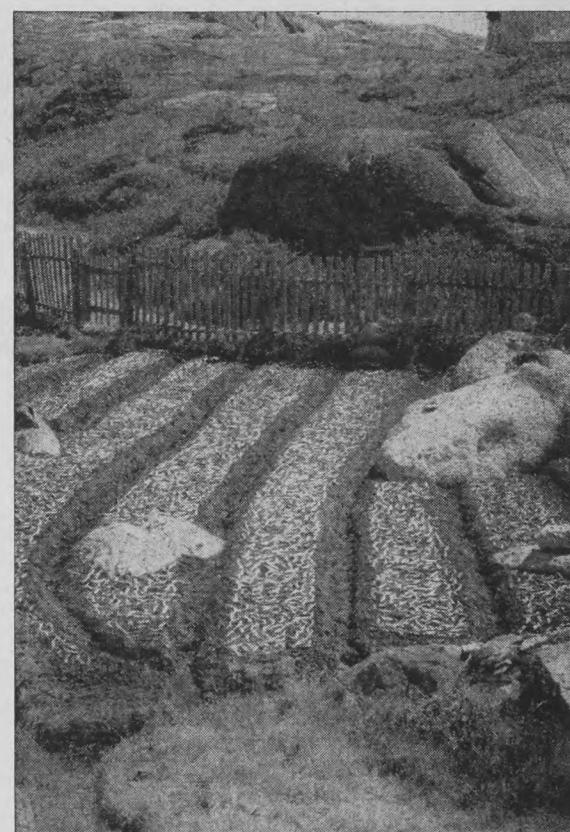
MOST of these handicaps limit certain kinds of farming more than they do others. On the other hand, there are some circumstances which give certain kinds of farming some real advantages over mainland farming. One important advantage is the very high prices in Newfoundland for particular farm products, especially those that are bulky and perishable, such as eggs, vegetables and milk. Prices in Newfoundland are mainland prices, plus freight, handling charges and the additional costs of spoilage. Because of these extra costs, the higher costs of production in Newfoundland may not be unprofitable, because, though high, they may be lower than the delivered prices of imported foods. In fact, a fairly large part of some of Newfoundland's food requirements are now supplied locally by Newfoundland farmers, in spite of their high costs, unfavorable climate and poor soil.

Another thing that encourages farming is that the government of Newfoundland seems prepared to help agriculture to a greater extent than most other provinces could. This can be done because agriculture is such a small part of the whole industrial picture, and taxes would need to be increased very little in order to give agriculture a substantial amount of help. For this reason the cost of helping farmers with land clearing, soil improvements, extension and other assistance would be quite small compared with the assistance provided in other provinces. This would still be true if farming in Newfoundland were expanded much beyond its present size.

Summary of farming opportunities as viewed by a Royal Commission on Agriculture

Numerous benefits would accrue from more farming in Newfoundland, and with these in mind the government seems both willing and anxious to assist farming. For example, population has been growing faster than in any other province, and because many fishermen are looking for other work that will give them a more dependable living, a great many new jobs must be found both in the immediate future and in the years to come. Agriculture may provide many of these new jobs. In addition, farming can provide off-season work for fishermen, woods workers and others in the more isolated communities where some live.

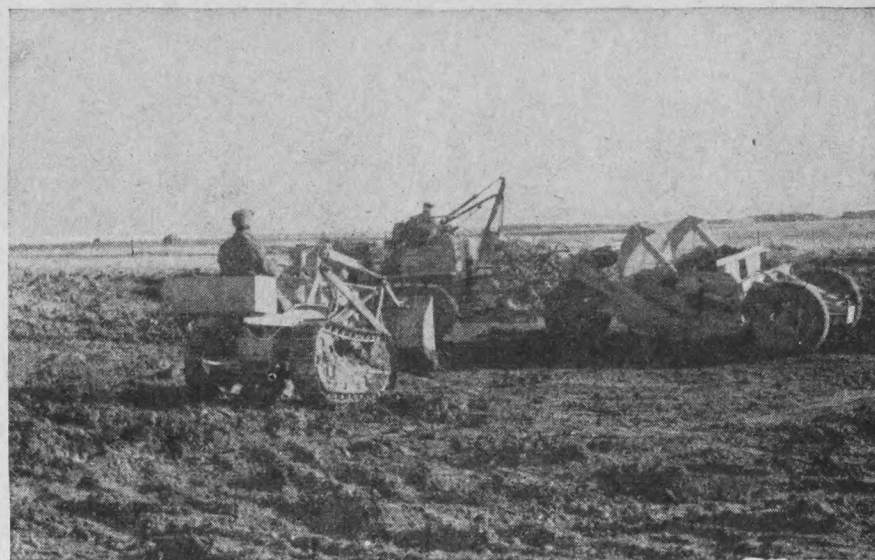
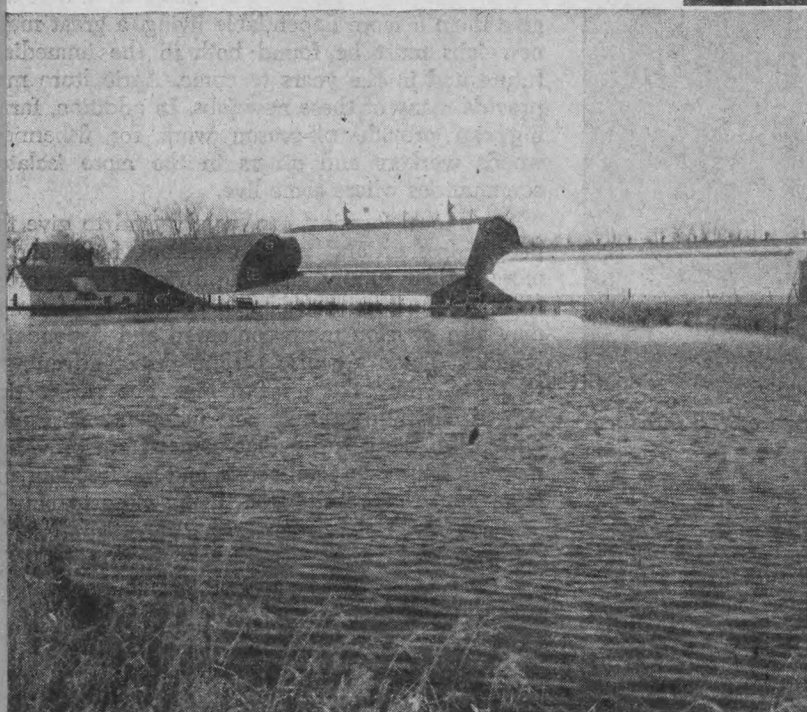
More local farming, too, would tend to give the people fresher and more nutritious food, and a more regular supply, than is provided by imported food. By putting more people on the land, farming may also develop more contented and dependable families. There are also certain direct advantages to those who take up farming. The satisfaction gained from operating an independent family enterprise, the security that comes from providing many of one's own food needs, and the freedom and enjoyment that results from living close to nature,



This tiny garden is fertilized by caplin, a small fish spread carefully on the soil surface.

are all very important. Finally, as long as there is a possibility of a military emergency, the Newfoundland government may find it desirable to have a good part of all food needs produced right on the Island. Because of its geographic separation from the mainland, it might be difficult to supply the Island in time of necessity.

WHILE all these reasons favor more agriculture for Newfoundland, there are, nevertheless, only a few kinds of farming that can be expected to be reasonably profitable. Poultry and egg farming is one of these. Very little land is required for buildings and range, and Newfoundland's poor soil and climate are therefore not a serious drawback. Egg prices in New- (Please turn to page 52)



Top, l.: This mechanical sugar beet harvester was used on the Tiffin farm for the first time last fall. Top, r.: Milking herd returns along main irrigation canal. Bottom, l.: Barns stretch for 300 feet alongside pond. Bottom, r.: Tiffins have own earth-moving equipment for levelling land to be irrigated. [Guide photos]

Dairying on Irrigated Land

IN 1901, the Tiffin family pulled up stakes from a little farm in Bruce County, Ontario. Taking a train West, they finally disembarked at the small coal town of Lethbridge. A few miles southeast, across the unmarked and sparsely grassed prairie, they chose their new home on dry land, then best suited to ranching.

A few early settlers were daring the wind and drought by breaking the virgin fields, and seeding to grain. Unknown to them, however, the golden hope for the future lay in the sparkling river waters. The rivers rose at the melting mountain glaciers, tumbled down tortuous and rocky ravines to the foothills and then began their long meandering course across the great plains, to finally empty their unused water into Hudson Bay. A few far-sighted pioneers had even predicted that these waters could turn the droughty land of southern Alberta into a lush and densely populated garden area.

When the Tiffins arrived at Lethbridge, construction of southern Alberta's first major irrigation project was well under way. A group of hard-working Mormons skilled in the art of irrigation farming in their Utah homes, had been lured by Sir Alexander Galt and his British-financed Alberta Rail and Irrigation Co., to the new country to build the dam, canal, and ditches to divert water from the St. Mary River, at Kimball, to large areas of dry but level land.

"The first irrigated field in the Lethbridge district," says Jack Tiffin now, "was on the land homesteaded by my Dad, only weeks ahead of the first flow of water through the main canal in 1905."

Part of this farm contains the first field irrigated in the Lethbridge district, and it is still operated by the same family

Six hundred acres were irrigated in the area that year, and another 3,000 acres at Magrath. Since then, sugar beet factories and canning factories have risen in bustling towns. Thousands of acres have been turned into "green acres." Southern Alberta, through irrigation water, has become one of the most prosperous parts of the Canadian west.

Though much of this new wealth came from sugar beets, vegetables, grass seed, and other special crops, the Tiffin farm, making use of the same irrigation water, has based its growth on the west's oldest farm product—grass. Its success has been just as complete.

Under irrigation, 40, 50, or 60 blades of grass are grown where one grew before. The four quarters owned by Mr. Tiffin are doing work that several sections of dry land could hardly duplicate.

On these 640 acres, and another 160 acres leased from his brother, he milks a Holstein herd of 125 cows. Over 50 cans of milk a day are shipped from the farm to the Lethbridge market. In 1953, the Holsteins finished 105 lactations averaging 12,760 pounds—the highest average, despite the huge herd, of any Alberta herd under Dairy Herd Improvement Association supervision.

EVERY field is put to maximum use. A single acre of pasture, flooded several times, provides grazing for a cow from mid-May to mid-October. This means that about 100 acres of creeping red fescue, brome grass and White Dutch clover are adequate for the milking herd. Last year, a further 17 acres carried 35 yearling heifers without additional feed, after the hay aftermath was ready. Another 150 acres of alfalfa provided two cuts of hay. A coarse grains mixture of two-thirds oats and one-third barley, seeded on 250 acres, yielded about 80 bushels to the acre, providing chop for the herd. That adds up to 517 acres for 200 head of stock.

The other 280 acres are divided this way. One hundred acres of wheat running about 40 bushels, give him a cash crop. Next, 65 acres of sugar beets are grown on shares by some of the farm workers, as well as additional garden vegetables. The final 100 acres are given over to summerfallow, in the continuing battle against weeds.

Thus, 800 acres provide all the feed for 125 high-producing Holsteins, except the beet pulp and brewers' grains which he feeds the year round. It provides feed for another 75 or so heifers, for he raises all his females either for herd replacements or for sale. It also allows 180 acres for cash crops and another 100 acres for summerfallow.

Achieving such high production has meant careful attention to every detail of good farming. The loafing barn, cleaned of its four-foot manure pack each spring in about four days, by two spreaders and a front-end loader, provides manure for about 100 acres. The sugar beet land gets a heavy dressing. This is plowed (Please turn to page 61)

by DON BARON

Wands, Witching, and Water

Well-witcher Dobson has a black cat, but black cats and witches have nothing to do with water divining

by C. V. FAULKNER

"WATER diviners?" said a leading physics professor. "I count them with people who see flying saucers." And that closed the matter, as far as he was concerned. But water divining, dowsing, well-witching, or whatever name you choose to call it, is centuries old, and has a way of bobbing up into the news and confounding people every so often. The most successful skeptics are those who manage to avoid any personal contact with the craft at all. It's pretty hard to remain skeptical when a twig of hazel, or willow, develops strange antics in the unbeliever's own hands.

That's what happened to an English writer named Peter Fleming, back in the early 1930's. Water diviners had always amused Fleming, who saw in them "a kind of wistful humor, tinged with sentiment." His mental image of a dowser pictured a tall, stooping, Druid-like figure, with flowing white hair, a straggling, goat-like beard, and dim, hopeless eyes with heavy pouches under them—a wand waver, enveloped in a gentle aura of mystery. This concept received a bit of a shock when one of the village roustabouts, arrested for striking a policeman, gave his occupation as water diviner. To Fleming, the thoroughly alive and robust offender seemed hardly the type to possess mystic powers. But this was nothing to the shock handed to him a few weeks later when he visited a friend who'd just bought a place in the country.

"Let's see if you can witch water," his friend said jokingly, as they walked in the fields. "There are several springs under this place. I know where they are, but you don't."

Thrusting a forked hazel twig into Fleming's hands, he turned them so the flat of Fleming's wrists were up, and the apex of the fork pointed away from his body.

"Hold the stick tightly, so that you put a strain on the stick," he cautioned Fleming as he started him on his way.

After several yards of pacing, the latter was astounded—and not a little awed—to feel the twig moving in his grasp. Describing the experience later, Fleming said, "In spite of my grip on the arms of the fork, the point began to rise, steadily and uncannily. I went on until the point came right around and the twig was twisted out of my hands, leaving them sore."

"By gad, you've got it!" said his friend, amazed, "you're right over one of the springs now."

Beardless and bagless though he was, Fleming had to face the fact that some force within him reacted to the presence of underground water. After that experience he carefully avoided any arguments on the pros and cons

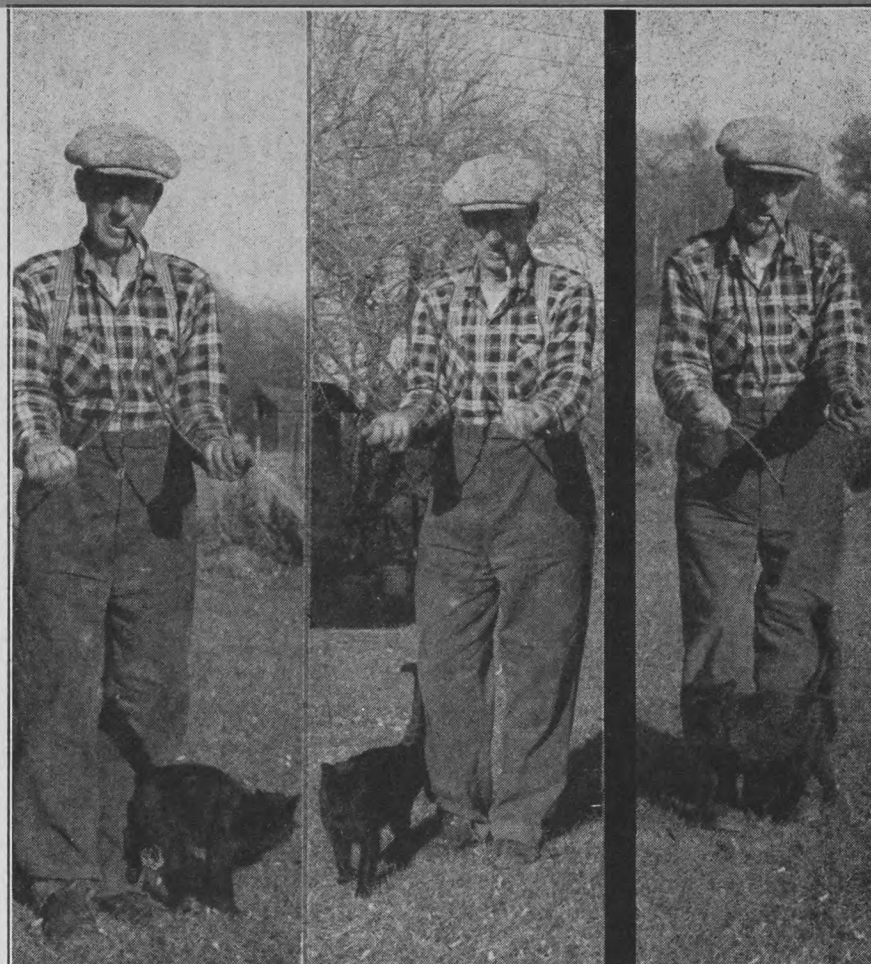
of water divining, keeping what he called his "guilty secret" to himself.

In 1945, another writer named David Johnston, reporting in *Saturday Night*, observes that "it's pretty well taken for granted now that there is something to water divining." His investigations led him to conclude that this strange ability some people appear to have is merely a primitive instinct, or "sixth sense," the same highly developed animal sense possessed by homing pigeons and migrating bird flocks. Primitive man had this instinct, and water diviners, he concluded, are people in whom it has survived.

THE ability to detect water varies widely in degree from person to person. Some "feel" its presence strongly, and others, only lightly. In special cases, diviners have been known to locate dead bodies, and various mineral deposits. This would argue that water divining is a natural phenomenon, such as the ability of the human ear to place a sound, which also varies from person to person. Nor is divining more incredible than the ability of the eye to gauge distances by means of reflected light, which travels at 186,000 miles per second. A purely physical explanation, Johnston suggests, would be that diviners feel very minute variations in gravity due to changing formations under their feet. After all, minerals and oil are now found by prospecting machines which measure the varying velocity of earth waves.

Many diviners have brought down ridicule on their heads, by saying that their reactions are caused by vibrations picked up by the divining rod. Naturally, skeptics seize on this explanation as a means of debunking the whole business. How can a piece of wood, wire, whalebone, or any of the wide variety of devices used by dowsers, pick up "vibrations" that cannot be detected by the very sensitive electronic equipment available today? The answer is, in Johnston's opinion, that the diviners' rod or wand has nothing whatever to do with it. It is the human body which picks up whatever force emanates from the water or ground; and the body is a far more delicate and intricate mechanism than any that science has been able to devise so far. The divining rod is used merely to set body tension to the proper receiving pitch. In fact, an English-born, British Columbia woman, Evelyn Penrose, who comes from a long line of diviners, is reported able to detect water, oil, or minerals by simply extending her bare hands.

"Mystics, and people of that sort," said a scientist friend (meaning writers too, but he is a kind man), "are inclined to attach undue importance to things that wouldn't hold up



Dick Dobson, 70-year-old farmer of Bradwardine, Man., demonstrates for The Guide. Left: A forked willow stick properly held. Center: It begins to move. Right: It is drawn down when over a known underground stream.

under a proper test." But before you pooh-pooh the whole idea, just pause a moment between the first and second pooh, and consider this. For those of the "show me" school who require a properly conducted scientific investigation, there is one such available—complete with all the trimmings.

A REPORT on an extensive investigation into the art, or craft of water divining, by Dr. G. A. M. Lintott, M.R.C.P., was printed in the *Guy's Hospital Gazette*, London, England, in 1933. In response to many requests, this paper was reprinted in the issue of December 27, 1952. At the time of his experiments, Dr. Lintott was a part-time demonstrator in the hospital physiology department, and shortly before the outbreak of World War II he was appointed an assistant physician. His promising career was cut short by an enemy bullet in 1940 while on active service in Egypt.

Dr. Lintott was assisted in his water witching studies by Professor Pembrey, also of Guy's, and their investigations took place both in the laboratory and in the country. These were conducted in an atmosphere of the deepest skepticism, in the presence of critical witnesses, and wherever possible, with control tests established. Any positive results obtained were to be regarded as explainable on a purely physical basis. In other words, no hint of the supernatural was permitted, and no "flying saucer" types were allowed to take part.

In the laboratory at Guy's, an apparatus was set up so that water could run in a pipe beneath a platform,

both out of sight, and without the knowledge of any observer. The first step was to see if there was any evidence to show that certain people did possess the power to divine water. A number of people, therefore, were provided with twigs or rods and asked to attempt to pinpoint the location of the pipe.

The most common dowsing instrument in England is a forked hazel twig, about 16 inches in length, and having a maximum diameter of an ordinary lead pencil. However, most diviners have individual preferences as to thickness, and any suitable shrub may be used. Some prefer to employ two L-shaped rods, grasping the shorter limbs of the rods, one in each hand, and holding the arms out in front of the body with the ends of the longer limbs about a foot apart. In both cases the dowser's arms are held far enough apart to set a degree of tension in the muscles of the hands and forearms, and a shuffling gait is adopted which tenses the muscles of the legs.

After repeated tests, it became evident that some of the subjects showed a marked sensitivity to the water, by an immediate upward movement of the twig, or inward rotation of the rods when they passed over the pipe. It was possible to divide the subjects into three classes: those who were completely insensitive to the test; those who were sensitive to a small degree, when the flow of water was comparatively heavy; and a small group who were extremely sensitive. People in the latter class were able to localize the position of the pipe within

(Please turn to page 50)

**The Texan had boasted
"There's no horse I
can't ride—no woman,
who crosses my path,
I can't kiss"**

THERE had never been sunlight like this. Back in Kansas and all along the stage trail from the Missouri River the sun had shone hard and bright and hot, but it was not like this. Here, in Santa Fe, Maria thought, the sun did more than warm the air; it seemed to cleanse the things it touched, and it touched everything. The air was fresh to breathe, and this morning Maria breathed it deeply.

She sat on a broken ox yoke that some teamster had abandoned in the courtyard of her father's house. Out of thongs of buffalo hide she had woven a wagon whip and its graceful coils lay beside her in the dust. Finished with it, at last, she took the hickory butt in her hand and stood up and swung her arm in a swift, strong arc. She was expert at it and the whip leapt from the dust and split the silence of the morning as sharply as a crack from a plainsman's rifle.

She coiled the whip once more and flexed it in her fingers that were smooth enough, yet tanned like a coach driver's. She was a tall girl with chestnut hair that trapped and held the golden light in its folds. She had blue eyes, but they were not limpid or soft or timid as perhaps they ought to have been; they were frankly capable of fire, they were proud and they were curious.

Maria faced the open gate that breached the thick adobe wall of the courtyard and shot her whip forward and made it sing in the brittle air. The sound of horses' hoofs rang on the hard earth of the camino, and the voices of riding men came over the wall.

SHE neither paused at the sound, nor made the customary feminine effort to conceal herself. Everybody—at least everybody back home in Kansas—knew that Hiram Bent's daughter was not afraid of men, that she rode like a man, shot like a man and (some said) even fought like a man.

Again she coiled the whip, happy with the music it made, and sent it singing through the gate.

It was gone from her hand before she saw the young man and the bay horse directly in its path, and she cried out, but it was too late; there is no recalling a whip already cast. The limber thong spat against the horse's flesh with the impact of an arrow.

He was a big horse with uneasy eyes that held fear in them, and the stroke of the whip exploded the fear into terror. In a single movement he whirled and reared high into the air and higher until the sun flashed against his underbelly, until dust enveloped him and his rider, until his terror turned to anger and he plunged

and fought, and the man upon him swore and dug his spurs deep in the horse's flank and together they disappeared in a whirlwind of violence from the open gate and from Maria's sight.

They disappeared—horse and man—suddenly as they had come, but Maria would not have it so. Still clutching her whip, she ran out of the courtyard and stood by the wall and watched the fight with careful eyes. The young man rode well, and he was unafraid. She could see it in the ease of his tall body wedded to the plunging saddle, in the calm of his hands on the reins. The bay horse had brought him far off the camino and down a slope studded with mesquite, and now, having chosen the arena, the bay horse would see the battle through.

For the first time, Maria saw that there were other men on horses—three of them—all watching their companion with critical interest.

"The boy is good with a horse," one of the men said. "With any horse," another one said. "He's the best. There's no horse from here to San Antone can throw him. Watch him."

They watched him—Maria standing against the adobe wall, the three men motionless on their motionless mounts—and the three men were right.

The bay horse could not throw his rider, could not jar him from the

saddle, could not so much as jerk the reins from the young man's resilient hands.

Time and again the bay tried but it was futile. At last, beaten, weary, he made one more feeble plunge, striking the earth with stiffened legs, but the fight was out of him. The fight was over. The young man shrugged as if to say he had expected more of the horse, then turned him up the slope and toward the courtyard gate.

"I told you," one of the three men said. "I told you to watch him. He's a Texan, Texans can ride."

Texan, Maria thought—a Texan!

The word meant a lot to her. It meant more to her father. "Texans?" she had often heard him say. "Proud and arrogant devils with that little republic of theirs. Big men—too big for their buckskins—ten of them will take on a hundred. Think the whole territory is their hunting grounds! Me—I'd rather reason with Comanches!"

MARIA had heard that statement often—that and other things about Texans. But, strangely, though it should have filled her with mistrust, it had only made her curious—curious about Texans. And now here was one—here was a Texan, and she watched him approach with unconcealed interest.

Too big for their buckskins! Well, this young man wore buckskins and

by
**RAOUL
SCHUMACHER**

he was big—big-shouldered, big-chested—and big-mannered. He wore a broad-brimmed hat with a flat crown, and when he took the hat off and waved it airily at his companions, Maria saw that his hair was corn-yellow, and long, like an Indian scout's, and that his eyes were sharp with pride.

"It was a nice ride, Jonas," one of the men said.

The Texan shook his head and laughed. "Not for me," he said, "not for Jonas Price." He put the broad-brimmed hat back on his long yellow hair and neck-reined the bay horse up onto the camino and, ignoring his companions, walked the horse toward Maria slowly.

The bay was bright with sweat and breathing hard. Jonas Price sat astride him with negligent ease and watched Maria from under the broad brim. He eyed her unconventional clothes—the fringed leather skirt, the worn riding boots, the vest of doe-skin with the many pockets—and the wagon whip still in her hand.

When she could feel the breath of the bay horse against her shoulder, Jonas Price swung out of his saddle and confronted her.

He looked down upon her and smiled, and Maria did not think she liked the smile. It was bold and mocking. It was full of assurance and tinged with derision. Men did not smile like that at Maria Bent.

She squared her shoulders and did not return the smile. "It was an accident," she said, glancing at the whip. Jonas Price laughed. "I like accidents," he said. "Accidents and horses—and girls that crack whips. Down home in Texas they do it different—but I reckon cracking a whip at a man's horse is as good as any way to catch his eye."

For a moment the insolence of the remark escaped Maria. She stared up into the brown, clean-molded face with a puzzled expression which turned slowly to incredulity, then swiftly to anger. She did not hesitate or bite her lip nor glance at the ground. She stepped backward and struck him hard across the mouth with the butt of the wagon whip.

"Where I come from," she said, "we don't like Texans. We don't take anything from Texans. The whip was an accident—the first time. This time, it isn't." She held the butt in her hand and, turning toward the courtyard gate, began to coil the thong with deft and steady fingers.

Jonas Price stood very straight and very tall. He showed no anger, no surprise. His grey eyes held the look of a young man unfamiliar with rebuff, unbelieving of failure. He watched

(Please turn to page 65)



Jonas looked down at her and smiled. Maria did not think she liked the smile. "It was an accident," she said.

The Whip Hand

Illustrated by Clyde Ross

Growing Bulbs for Beauty

"ATHING of beauty is a joy forever," some wise man once remarked, and if that is true then the bulb growers of Holland, Britain, B.C. and other parts of the world should certainly be classed as "joymakers," for their business does much to beautify the earth in many parts of the globe. Bulb growing, indeed, might well be called a beautiful business in more ways than one; and doubtless bulb growers in Holland consider it a profitable one, bringing, as it does, a reported \$38 million annually into the country from different parts of the world.

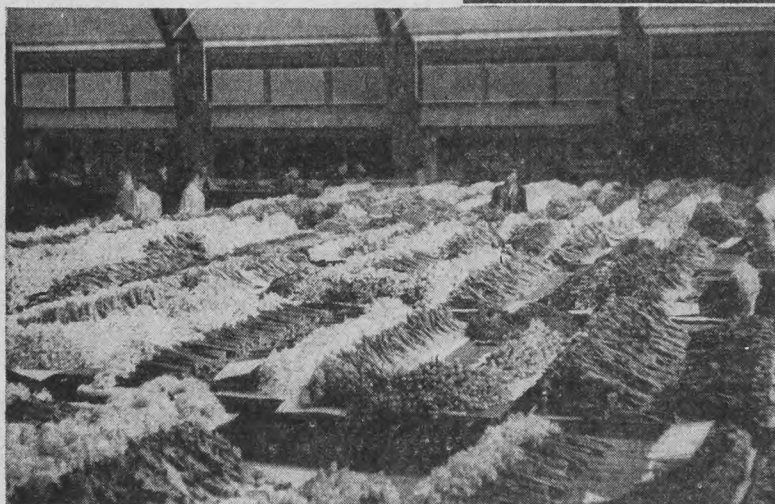
In 1953, Canada imported slightly more than 64½ million bulbs from such countries as Holland, United States, Mexico, Bermuda, Australia and India, as well as smaller quantities from various countries in Europe. Holland and the United States together supplied Canada with 95 per cent of her bulb imports. Dutch bulbs alone made up 83 per cent, or more than 52.5 million bulbs, valued at approximately \$1,350,000.



Above: Field of King Alfred daffodils, Saanich Peninsula, Vancouver Island.

Left: Part of world's largest flower auction market, Aalsmeer, Holland.

Right: Inverurie daffodils for sale in a grocery, Aberdeen, Scotland.



Nowhere in the world, perhaps, is bulb growing carried on more efficiently than in Holland. It rates as a major industry, and is generally looked upon as the greatest tourist attraction that the hustling little country has to offer a world reaching out for beauty. While the United States is undoubtedly Holland's best bulb customer, buying more than \$10.5 million worth last year, Britain is also high on the list contributing approximately \$8.7 million to the total. On a per capita basis, however, Sweden buys more bulbs from Holland than any other country, each citizen of Sweden paying out about \$2 to beautify his home.

Co-operation is the keynote to successful bulb growing in Holland; and in the Associated Bulb Growers of Holland, the Dutch have built up an organization that is the equal of any in the world, with each member doing his own growing and selling. Making the most of nature's endowment of a suitable soil and climate, in certain favored areas near the North Sea, the Dutch growers soon came to realize that the aid of science must be enlisted for best results. With the aid of a sympathetic government they started their own research organization to delve into various growing and disease problems. Together with findings from government laboratories,

these efforts have been an important factor in solving many problems connected with the bulb industry.

WITH characteristic Dutch perseverance and purpose, the bulb growers early set out to control various factors affecting the growing of their crop. Definitely restricted to the amount of land they could use, and realizing, too, the need for practising crop rotation to avoid soil diseases, they hit on the novel, but rather expensive, procedure of periodically turning their soil (in many cases pure sand) over to a depth of three feet or more. A new slant on rotations, indeed!

While the weather could not be manipulated in the same way, the enterprising Dutchmen found that the vital moisture supply might be regulated to a great extent by raising or lowering the water level in the numerous ditches that spread out like a network over most parts of Holland. In this way sub-irrigation is achieved with optimum results to the bulb crop,

helping to maintain perhaps the correct growing soil temperatures that some scientists think may be linked up with imparting vigor to the growing bulb.

Not only do the Associated Bulb Growers of Holland go all out to control the individual production problems of their members, but the Association plays a strong role in organizing the marketing of the export crop. As businessmen the Dutch have few equals, and generally are considered master salesmen. Being by nature a friendly folk, they have shown a pronounced aptitude for public relations, as any who have visited the bulb fields of Holland will testify.

When it comes to advertising their product, the Dutch bulb growers play all the angles at home and abroad with sometimes breath-taking results. The Keukenhof might be cited as an example of superlative advertising, but this famed permanent open-air exhibition of spring-flowering bulbs near Lisse is much more than this. Those who have been privileged to

see this beautiful 77-acre park planted with an estimated ten million bulbs, amidst woodland trails, streams, lakes and waterfalls, cannot fail to be staggered by its breath-taking beauty at every turn, or be filled with great respect for the master planning behind it all.

PERHAPS the greatest lesson to be learned from the Keukenhof in Holland is what a united effort on the part of growers can accomplish, when they work harmoniously together toward a common objective. Each grower or exporter is allocated a certain specified area in this permanent open-air exhibition, and the competition is very keen among the different growers to put on the best show possible. Since it was started on limited capital by the growers in 1949, it has developed into one of the greatest show places in Europe. This year a helicopter service operated between the park and the main centers of Holland, helping to convey garden lovers by enthusiastic thousands there

Holland leads the world in bulb growing, but B.C. growers produce bulbs of high quality

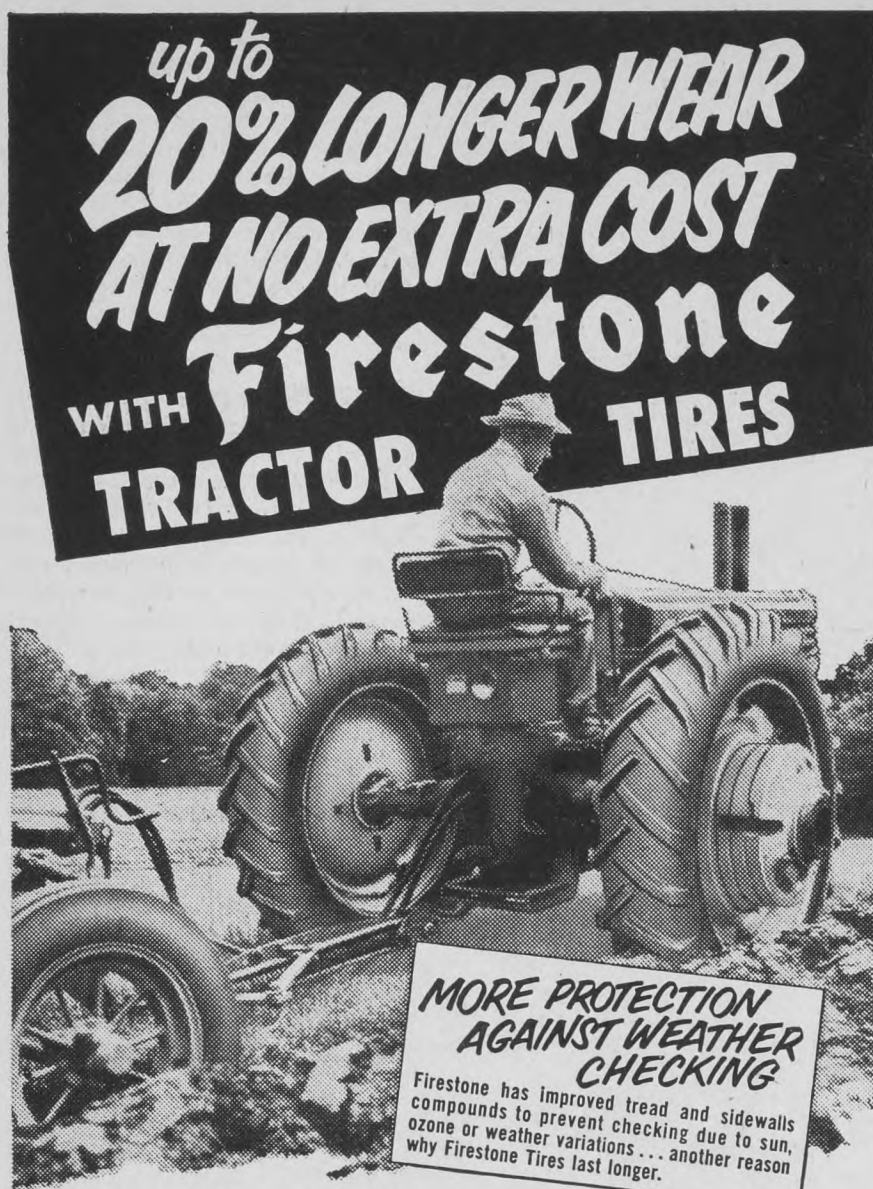
by CAMERON REID

every day. Most visitors, of course, come by car from neighboring countries, or by specially chartered buses from adjoining towns and cities.

Bulb growers do not sell the beautiful bloom from their growing stock, as this would weaken the bulb. Because growing the best bulbs possible is their primary concern, every precaution is taken by the Dutch bulb growers to see that the bloom is removed from the top of the flower stock as soon as possible after the flower has opened sufficiently to detect any virus disease, foreign variety, or any other irregularity in the planting stock.

Holland is noted for its comprehensive conservation measures. Very little goes to waste in that efficiently run country, and the bulb growers often put their discarded blooms to good use. In some areas the bloom is used for making beautiful floral floats to draw tourists to certain towns. In others, as in Limmen, each grower or exporter makes what is known as a "mosaic" or a floral design in flowers, in front of his property, which is his contribution to the local Flower Festival. These various "mosaics" are all entered in a competition and are judged according to originality of design, harmony of color, or such points
(Please turn to page 60)

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AT NO EXTRA COST
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ALWAYS SPECIFY FIRESTONE TIRES

Under the Peace Tower

by HUGH BOYD

NEARLY ten years after the federal and provincial governments held their fiscal conference here in the summer of 1945, a basic problem still remains. And it is one of the most important problems Canadians have to face. What are future federal-provincial relations to be?

As provincial premiers come and go between their own bailiwicks and the national capital, it becomes increasingly plain that this is the subject of paramount interest at almost all political levels. Whether the topic be defence, or unemployment, or education, or farm price supports, or roads, talk sooner or later gets back to taxing powers. Who should levy what taxes, and for what purposes?

The municipalities are affected. In most of the provinces a strong feeling exists that too heavy a load is being borne by property owners, because it is upon them that municipal taxes fall. And they are being taxed not merely for services directly benefiting homes and real estate—such as fire and police protection, water mains and sewers—but also for services that, it is argued, ought to be spread over provincial taxpayers as a whole. For example, Ottawa is budgeting \$800,000 this year for the care of indigent hospital patients. The province pays a share of education and social service costs, but the municipalities argue it isn't enough. Urban municipalities believe, too, that the province should assume a much greater proportion of the expense of building and keeping up those streets which form a part of the provincial highway system.

On the other hand, if both urban and rural municipalities are to receive relief through a new deal from their respective provinces, whose wards they are, the provinces in turn must be financially able to make the adjustment in their favor. This goes straight back to the central issue of federal-provincial fiscal relations. The subject may have a dull and forbidding sound, but there's nothing more fundamental as far as the effect on the lives of most Canadians is concerned.

In 1955, as in 1945, there is no unanimity as to what should be done to keep the three levels of Canadian democracy in harmonious relationship with one another and let them do efficiently the jobs assigned to them. In his first budget speech, in April, Mr. Walter Harris summed up the different viewpoints thus:

"Some (provincial spokesmen) have proposed larger payments by the federal government to the provinces; others have asked that the federal government take on additional responsibilities, or contribute substantially to their cost. Some have pressed for a return to what they believe to be the original intentions of the framers of our constitution; others have advocated a formal reallocation of financial powers and responsibilities."

The finance minister then made the significant comment that, because a reallocation of taxing powers is difficult to envisage, "there is much to be said for medium-term agreements,



freely entered into, and subject to renewal, or reconsideration, at regular intervals"—in a word, the system of tax rental agreements that has prevailed during most of the past decade.

The chief and continuing opponent of this system, of course, is Premier Maurice Duplessis of Quebec. Mr. Duplessis asserts that provincial autonomy is in danger, that "there is no responsible government where the government is only the administrator of moneys which come from taxes decreed and levied by another government."

Yet another son of Quebec holds different views. It is an interesting point that Prime Minister St. Laurent served as counsel to the Rowell-Sirois Commission of 1937-39. The report of that enquiry is the basis of the present tax rental agreements. As for Mr. St. Laurent, one of his colleagues remarked the other day that the matters probed by the Rowell-Sirois Commission "ooze out of his fingers." He is steeped in them.

He, better than most, should be able to answer the loss of autonomy charge. When the Commission which he attended, recommended in favor of transfer of certain fields of taxation, and without any conditions attached to the subsidies or rentals paid in return, it was thinking of preserving the real autonomy of a province. It had heard from such provinces as Saskatchewan and Manitoba, which pleaded they could no longer discharge their constitutional responsibilities, because they were broke, or nearly so. And no one else could constitutionally do the things—as to schools, roads, and so on—they were supposed to do.

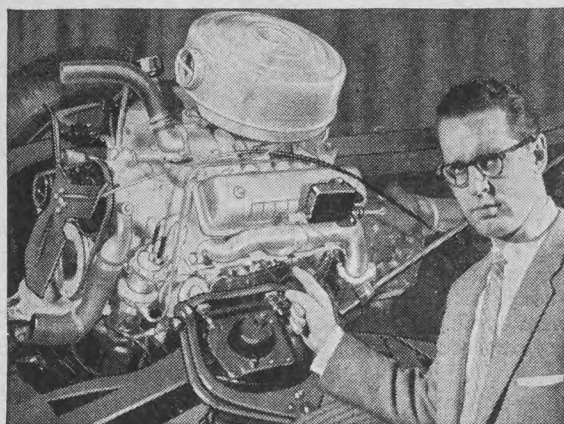
This same Commission was also aware that financial responsibility is essentially *marginal* in character. There can be substantial federal assistance, but the province must have fields of taxation that allow it to make these marginal decisions—as to whether, for instance, to raise extra money to pay supplementary benefits to its old age pensioners, or to build more rural high schools with better roads to serve them.

Subsidies, incidentally, made up a large proportion of provincial revenues at the time of Confederation. So there is no abandonment of basic principles in the present adjustment to 20th century conditions.



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MORE RESPONSIVE V-8 POWER — because of extra engine torque—gives you entirely new *instant* pick-up you so often need in traffic. New high-compression turbo-action spark plugs resist fouling and pre-ignition—provide top performance at all speeds. Meteor's three all-new overhead-valve V-8 engines are proved V-8's—products of the organization that has built over 17 million V-8 engines.

EVERY MODEL OFFERS AN ALL-NEW OVERHEAD-VALVE V-8 AT NO ADDED COST! ONLY METEOR IN ITS CLASS OFFERS YOU A CHOICE OF 3 GREAT V-8'S

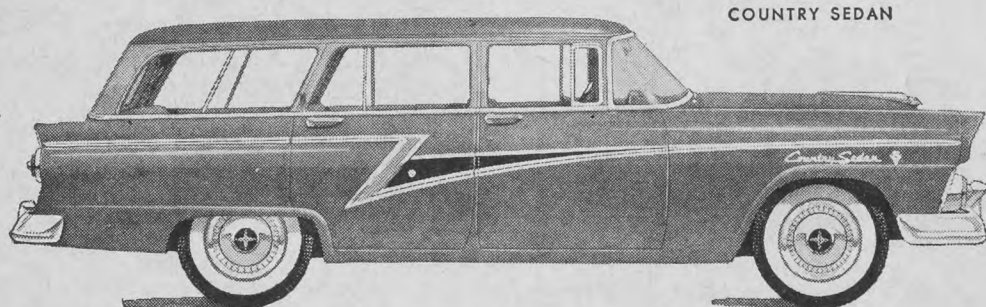
Here's a drive like no other drive! Smooth, instant pick-up the moment your toe nudges the accelerator. Remarkable steering ease, riding smoothness and stability. A feeling of high-spirited pride that comes with being ahead of the crowd.

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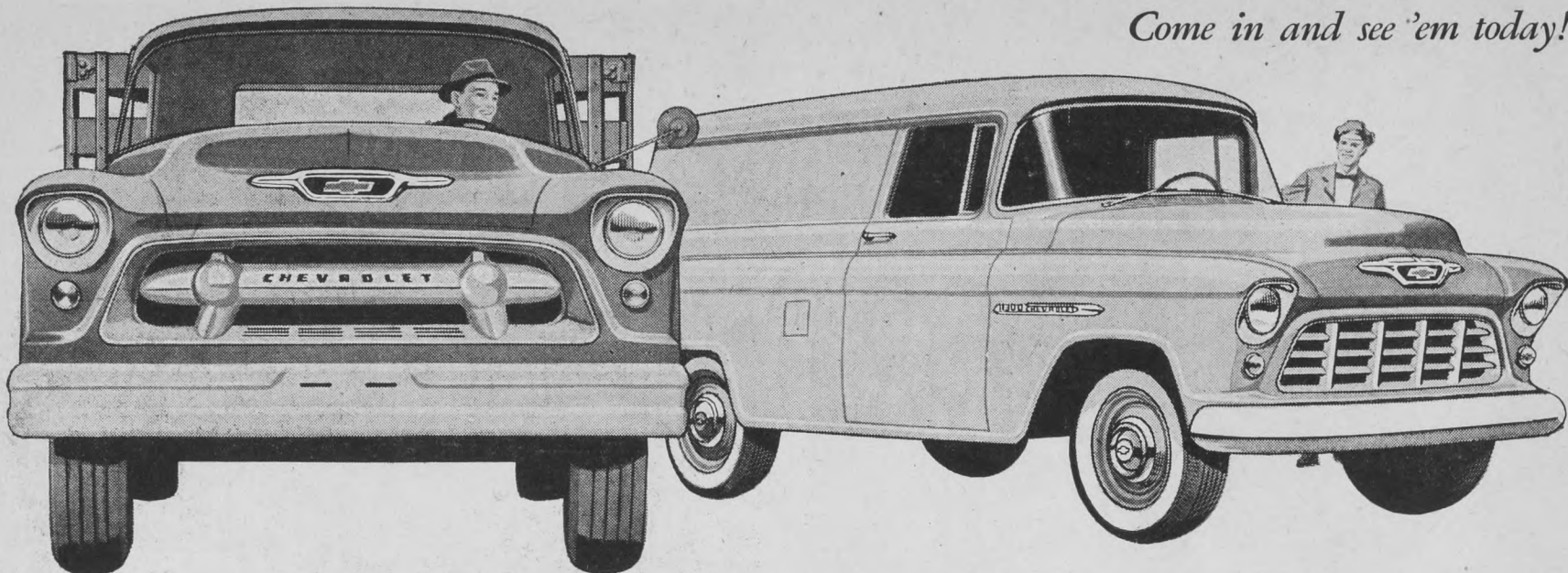
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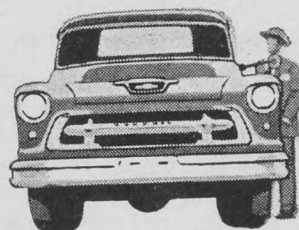
*with a whole truckload of
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These new Chevrolet Task-Force Trucks do more jobs. Do 'em faster. Do 'em better. And do 'em with new economy. Look over the new features and advances highlighted here—no other line of truck offers so much that's so completely new.

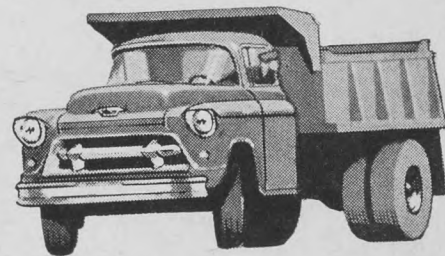


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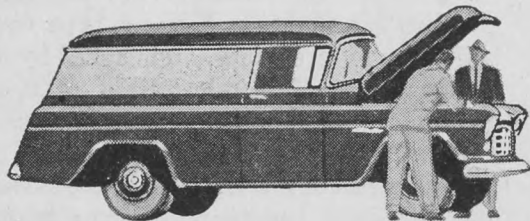
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It's Work-Styling — an exclusive development in truck design with two distinctively different styling treatments. On the job, your truck "looks the part".



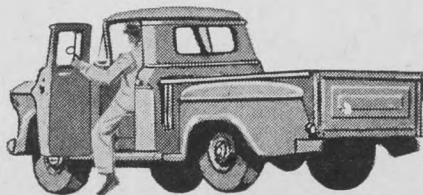
New 19,500 lb. G.V.W. capacity

New Chevrolet Task-Force Trucks are designed and built to handle loads of all kinds and sizes. Ratings now go up to 19,500 pounds G.V.W.



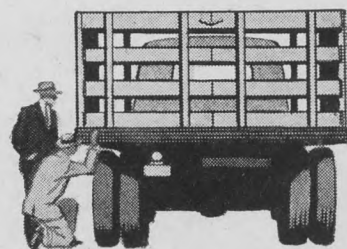
New "high-voltage" engines

All the new engines feature a new 12-volt electrical system for faster, surer starts plus many more exclusive advances. They're smooth, quiet and thrifty.



The cab is as new as the view

New Sweep-Sight windshield — for a wider, safer view. New High-Level ventilation. New broader and softer seats — new stronger cabs — new comforts and conveniences throughout!

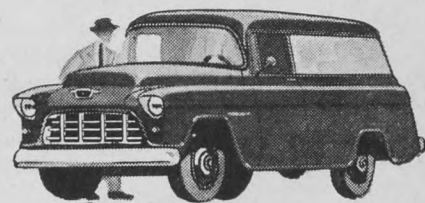
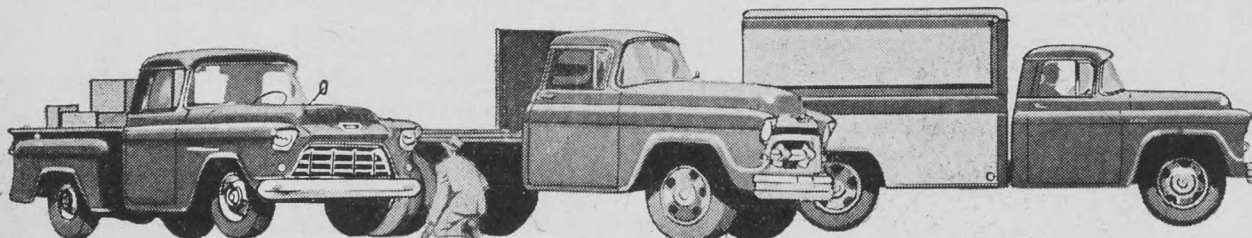


A smoother, load-steady ride

New springs front and rear provide a smoother, more stable ride. New concealed Safety Steps guard against mud, snow, or ice on the running boards.

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All models now have new ladder-type frames of standard width, with full-length parallel side members, giving greater strength, rigidity and durability.



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Now Chevrolet offers you new Overdrive as an extra-cost option on sedan deliveries and smoother operating truck Automatic on 1/2-, 3/4-, and 1-ton jobs.

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Now you can get Chevrolet Power Brakes on the 1600 and 1700 series. Optional at extra cost on 1500 series.

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Chevrolet Power Steering is now available on Heavy Duty Chevrolet Task-Force Trucks. Optional at extra cost.

New colors! New two-tone combinations

Take your choice of a longer-than-ever list of attractive new colors and combinations. They add immensely to the beauty of your truck.

NEWS OF AGRICULTURE



A complete switchover to diesel power over the next few years will see a speed-up in the movement of Canadian agricultural products.

Increased Swine Production

THE number of sows to farrow for the 1955 spring pig crop (December 1 to May 31) is estimated to be 21 per cent above the number farrowed last year, according to the Quarterly Pig Survey of the Dominion Bureau of Statistics. Questionnaire replies dealing with pig raising on 8,610 farms, indicate that increased farrowings will amount to 17 per cent in the East, and 26 per cent in the West. Of the 697,000 sows expected to farrow for this spring's crop, about 223,000, or 32 per cent, had farrowed by March 1. If prospective farrowings are fully realized, and the number of pigs alive at weaning age maintains the average of the last three years (about 7.5 per sow farrowed), the spring crop should be about 5,225,000 pigs, as compared to 4,215,000 last year.

Eat More Proteins

AN increase in the consumption of protein foods has been the most striking change in the dietary habits of Americans residing north of the Rio Grande, including Canadians, according to Cornell University. Since the twenties and thirties, per capita consumption of these foods has risen over 30 per cent, and now accounts for about two-thirds of all food purchased by American housewives. The so-called "protein foods" refer to red meats, poultry, fish, eggs, fresh whole milk for fluid consumption, and all manufactured dairy products, except butter, which is listed as a dairy protein. Other foods, such as grain products, are important sources of protein, but not generally thought of as protein foods. With an increase in consumption of 60 and 35 per cent respectively, white meat and eggs pushed the poultry industry into the lead in this protein expansion.

Rust Prospects

LEAF rust of wheat was prevalent throughout the State of Texas in varying degrees all last winter, and could develop into another serious epi-

demic on the Canadian prairies if conditions are favorable for spores to build-up south of the border. During last fall stem rust was present from the Texas Panhandle to the Gulf of Mexico; one of the rust strains present was Race 15B, against which our only defence is Selkirk wheat. Texas is the source of most of our rust epidemics—spores multiply in the extreme southern part of the State, and gradually work north as wheat crops grow and develop.

Although we are in a far better position to meet a rust epidemic than we were last year, officials are a little concerned over the fact that farmers in districts which lie outside the main rust areas of Manitoba and southeastern Saskatchewan are more anxious to sow Selkirk wheat than those who will be most vulnerable if an epidemic does strike.

Harvest Aftermath

AFTERMATH of last year's disastrous British harvest finds United Kingdom farmers £220 million in the red. Some of the smaller operators in the north have sold their stock and taken paid jobs; if 1955 repeats the calamitous pattern of 1954, many farm tenancies will be going begging by this time next year. At the moment, prospects for this year are not too promising; in large areas no winter corn has been sown at all, and cultivations have fallen away behind schedule. Thousands of tons of seed wheat lying in the barns will not be planted at all. In addition to this, there will probably be an increase in wages for farm labor of about seven shillings per week. The sudden removal of government controls, which mean a return to free markets, only served to add to the uncertainty of the picture.

One of the few bright spots is the creation of the Fatstock Marketing Corporation by the National Farmers' Union, in an effort to save its members from the chaos threatened by an unplanned return to a free market in meat. Conceived almost overnight, it has formed a strong bulwark against fluctuating market prices.

The thing that worries British farmers most from a political standpoint, however, is that the form in

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Stays on the job!



Texaco Marfak—the world's largest selling chassis lubricant—is favoured by progressive farmers everywhere, because Marfak stays on the job.

Marfak sticks to bearings and wear points *better and longer*; seals out dirt and grit; won't wash out, jar out or squeeze out. Even when weather and working conditions are at their worst, Texaco Marfak is at its best!

In tractors, combines, trucks and cars, Marfak gives you longer life for bearings, more *safe* hours of operation between lubrication.

Get Texaco Marfak today and you'll get smoother, more economical, more dependable performance from all your farm machinery.

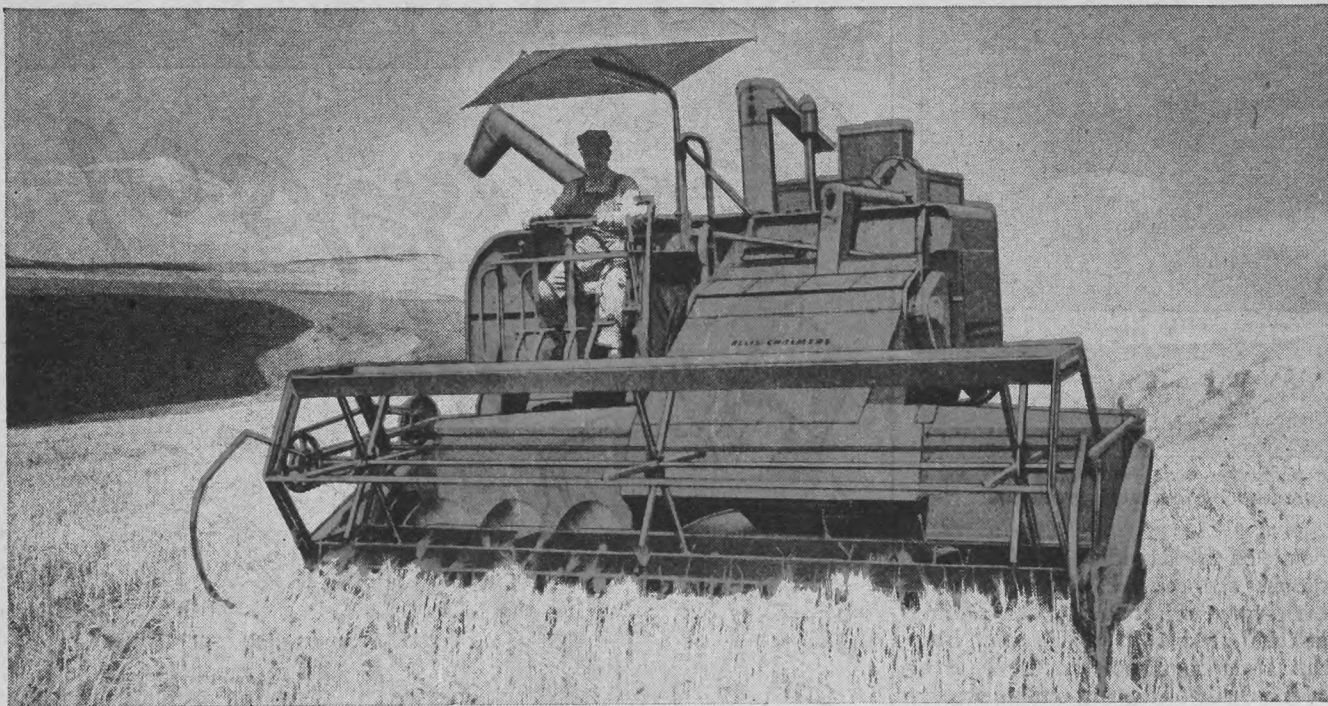


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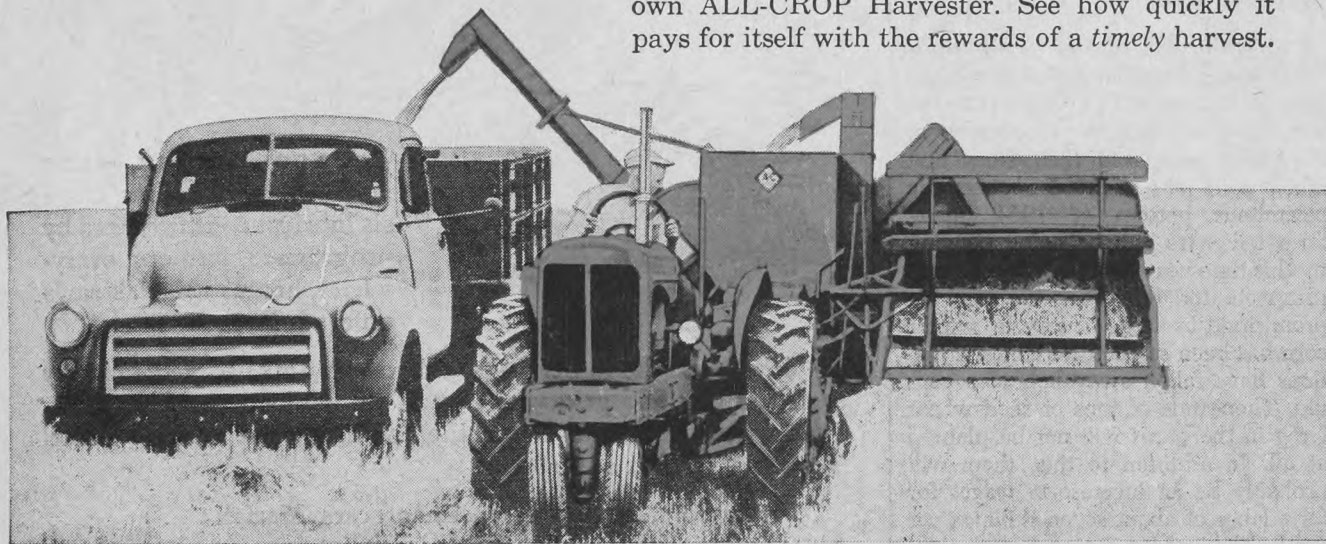
Bin or Bagger Equipment Optional

When heads become heavy with the weight of grain or seed—time is *most* important. You can make every harvest hour count for more with an ALL-CROP Harvester.

The self-propelled model 100 carries its weight low for sloping-land stability . . . is well-balanced for easy handling . . . has loads of power in the low-mounted WD-45 POWER-CRATER tractor engine.

Both self-propelled and tractor-pulled ALL-CROP Harvesters have wide-flow feed . . . get more of the crop into the machine—more grain or seed out of the crop. Both have the well-known ability to harvest more crops . . . more acres . . . for more profit.

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NEWS OF AGRICULTURE

which agriculture is protected in their country (food subsidies) makes it easy to assess its cost in millions, and so present a bill to the taxpayers which will drive them into revolt. British consumers, like those everywhere, believe they have an inherent right to obtain food at below production cost. Although other big industries are actually subsidized up to two-and-a-half times more than British agriculture, it is done by imposing import duties, which do not show so glaringly as a direct cost. These industries, therefore, are able to keep their public relations lines intact. V

"Canadian" Ranch In Scotland

A FORMER Alberta rancher, Joseph William Hobbs, has introduced Canadian cattle ranching methods in Scotland on a scale never seen before in that country. In the shadow of Ben Nevis, his 10,000-acre Great Glen cattle ranch now runs about 1,000 head of beef, and is a showplace for the whole Fort William area. Great Glen was the cradle of Bonnie Prince Charlie's rebellion of 1745, and was once a clan battlefield where quarrelling Highlanders organized for battle with broad axe and sword. Early in the 18th century it was an assembly place for herds en route to southern markets from Skye and the Western Highlands. When Hobbs first bought it in 1946 it was a bracken-covered wasteland, but today, grass grows ten months of the year, and winter feeding is reduced to a scant four months. V

Proposed Grain Bank

A WORLD grain bank to make surplus bread grains available to under-developed countries was suggested by the Interprovincial Farm Union Council in a submission to the Canadian Wheat Board. Representing farm unions in Ontario, Manitoba, Saskatchewan, Alberta, and B.C.'s Peace River District, the Council also urged the Board to press for a new International Wheat Agreement when the present pact expires July 31 next year, and to set prices for grain sold on Canadian home markets so they will be comparable to the price of goods and services bought by the farmer. V

Alberta Feeders' Day

THE Livestock Farm of the University of Alberta will be the scene of the Animal Science Department's 34th annual Feeders' Day program, starting at 10:00 a.m., Saturday, June 4. University livestock, and the new experimental swine barn will be on display, and results given out on recently completed experiments involving creep feeds for suckling pigs, ground vs. unground grain for pigs, antibiotic feed supplements, self-feeding of lambs and vaccination against "overeating disease," milk replacers for calves, the preparation and feeding of grass silage, and the finishing of steers on hay and pasture. Dr. Roy Berg, who recently completed studies

NEWS OF AGRICULTURE

in Animal Breeding at the University of Minnesota, will speak on "Modern Advances in Animal Breeding," and questions on animal diseases will be dealt with by Dr. J. G. O'Donoghue, Extension Veterinarian, Alberta Department of Agriculture. ✓

American Export Subsidies

THE United States is finding the selling of agricultural surpluses an expensive business. In a recent wheat deal with Yugoslavia they got little more than \$1.80 a bushel in terms of Yugoslav currency, although the same bushel cost the Commodity Credit Corporation, including support price and storage costs, about \$3.20. Each bushel sent to Yugoslavia, therefore, represented a loss of \$1.40, not taking into account the cost of ocean transportation, or any difference involved in accepting foreign currency instead of dollars.

But selling for a profit has become outdated in the face of mounting surpluses of agricultural products. Export sales through competitive bids have become one of the most important methods of disposing of CCC stocks. Seven surplus commodities now offered for export under competitive bidding include: dry whey, cottonseed oil, linseed oil, oats, grain sorghums, barley, and rye. Butter is a special case—so far, only a mere fraction of stored stocks (about ten million pounds) has been offered for sale on this basis. ✓

Get It At a Glance

Butter made from cold-stored frozen cream is a new wrinkle in the dairy industry of the Netherlands. It is reported to have the same taste as fresh butter, to have a higher vitamin A content, and to spread more readily. A large part of Dutch butter production occurs in the flush season, and the product stored for later sale. But a number of importers of Dutch butter have indicated a dislike of the cold storage product, so the adaptable Hollanders have decided to store the cream, and make fresh butter as the need arises. ✓

England has raised the price it guarantees farmers for grain in order to make up for increased wage rates granted to male farm workers. In terms of U.S. dollars per bushel, the new prices for 1955 crop grain are: wheat, \$2.23; rye, \$1.62; barley, \$1.47; oats, \$0.92; and mixed grains, \$2.88 per 100 pounds. ✓

Coffee drinking is gradually losing ground in the United States in favor of tea. Tea imports last year increased by some 6.5 per cent to an all-time high of 115 million pounds, while coffee imports declined 19 per cent to 2,259 million pounds. Price is thought to be a big factor; the import price for tea averaged 54.4 cents per pound, and that of coffee, 86.9 cents a pound. ✓

Profitable Dairy Sideline

A LUCRATIVE, and relatively inexpensive meat sideline for dairymen is the aim of researcher Peter Radford of the Ruakura Animal Research Station, New Zealand. As dairy products become harder to sell on world markets at present prices, Radford believes farmers can profit by crossing Aberdeen-Angus bulls with Jersey cows to produce a good quality veal, or "baby beef" of 500-pound carcass weight. A group of 22 calves (composed of both autumn and spring-born animals) fed chiefly on skim milk, and allowed free access to good quality pasture, averaged 300 pounds each when slaughtered 18 weeks later. Regular gains per calf of about 13½ pounds a week were recorded, on a total consumption of some 800 gallons of milk. All animals were in the prime class, carrying a good portion of flesh, with light bone, and no obvious waste.

A further study by Radford seeks to find if cross-bred Aberdeen-Angus and Jersey calves, reared on skim milk and grazed on good pasture, will produce lightweight beef carcasses before they reach two years of age. The experiment, still in progress, indicates that a carcass of 450 to 500 pounds should result in 18 months, giving a good quality beef animal which combines the blockiness of the Angus with the small-boned characteristics of the Jersey cow. ✓

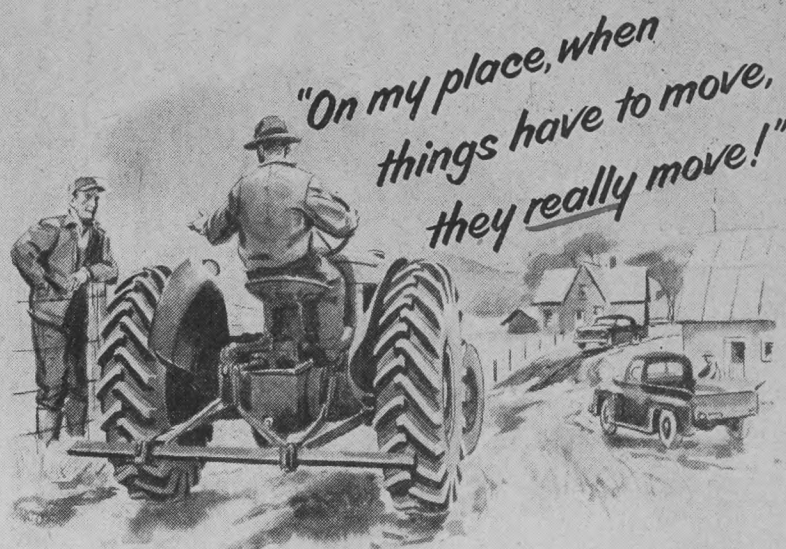
A brief look at agriculture in Canada and other countries of the world

Here is an example of what modern machinery and methods can perform in the field of agriculture: Although 66 per cent of the working people of India are farmers, their agricultural production is small compared to that of the United States, where farmers account for a mere 11 per cent of the total working force. ✓

Higher wheat prices in the world market have been forecast by Australia on the grounds that poor crops in that country, Canada, Argentina, and Turkey are expected to ease the surplus situation. Canadian farmers are already getting about three cents more per bushel because the Canadian dollar has slipped that much in relation to its U.S. counterpart. ✓

Egg exports from the Netherlands in 1953 reached the 1,683 million mark, establishing that country as leader among the world's egg exporters. Last year the figure had reached two billion by December 20. Of the total exports, 80 per cent went to West Germany, and the remainder to five other European countries. ✓

Although Russia made an enquiry last year about buying Canadian wheat, this year it appears to have enough for its own needs and a little for export as well. Between now and July, the Soviet government will de-



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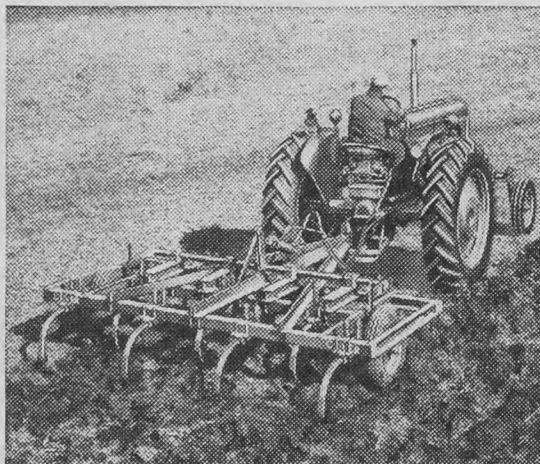
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NEWS OF AGRICULTURE

liver 70,000 tons of wheat and 10,000 tons of rye to Norway at a price equivalent of \$5,600,000 (U.S.) ✓

An increase in the wages of New Zealand farm workers has resulted in a rise in that country's guaranteed price paid to producers of butter and cheese. Last September New Zealand cut its guaranteed price on these items in an effort to lower export prices, and gain a bigger slice of the world market. On an f.o.b. basis, the export price for butter is now 40.8 cents per pound, and for cheese, 18.6 cents per pound, based on U.S. currency. ✓

Repayment by U.S. farmers of Land Bank Loans obtained through national farm loan associations amounted to \$174 million in 1954. As of the first of the year, farmers held a total of 325,000 land bank loans, amounting to \$1.3 billion. ✓

Rigid government price supports on basic commodities would result in lower incomes for U.S. farmers, said Charles B. Shuman of the American Farm Bureau Federation. Farmers' incomes will be kept at the highest possible level only if the price system is allowed to work with regard to supply and demand. ✓

A bill introduced by India's Congress Party to ban the slaughter of cows was thrown out when Prime Minister Nehru threatened to resign if it was approved. Because they are considered sacred by many Indian religious sects, millions of cows, too old to be of any use, wander through the streets of Indian towns nibbling at food in the stalls, while people often go hungry. ✓

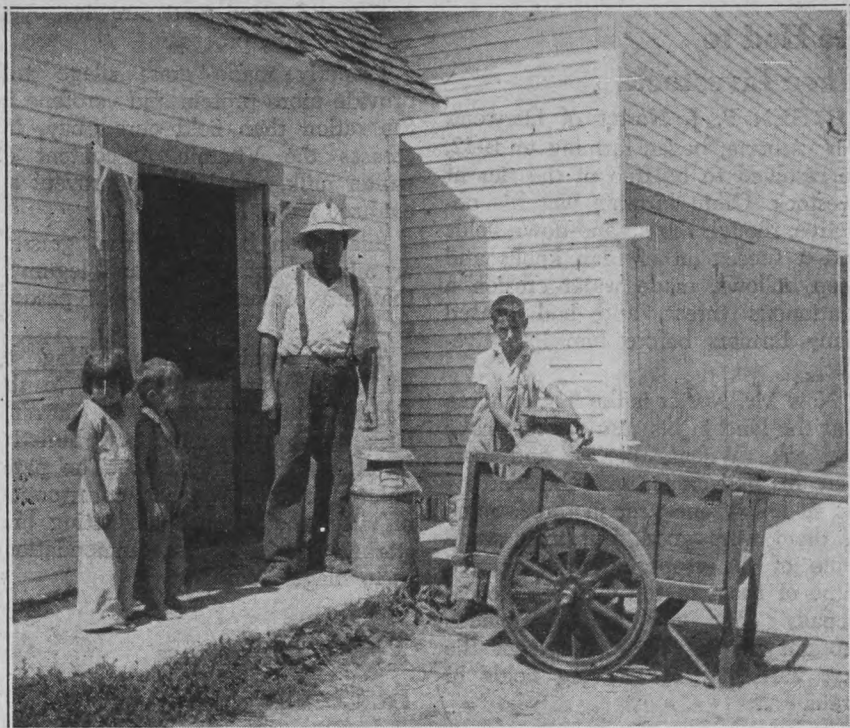
Two hundred farmers near Portage la Prairie, Manitoba, voted overwhelmingly for legislation to prevent Hutterite colonies from acquiring any more land in the province, except with government approval. The gradual occupation of land by the "collective" farms of the sect threatens to cripple community activity in that area, the farmers contended. ✓

Canadian egg exporters are facing stiff competition in overseas markets from the United States and various European countries. Denmark and the Netherlands are the two largest exporters of shell eggs in the world, and a favorable egg-feed price relationship in these two countries is expected to put them in a position to continue expansion of their egg production throughout 1955. ✓

Food prices in the United States are expected to remain stable during 1955, or to be slightly lower over-all for the same foods, according to John A. Logan, president of the National Association of Food Chains. ✓

A special fire-fighting technique for areas where there is a water shortage has been successfully tested in California. Using a specially treated baking soda, firemen knocked down the flames in a 60 by 60-foot barn in 30 seconds, then water was applied to douse the embers and prevent re-ignition. This method required only one-tenth the water needed to extinguish the fire than if water were used alone. ✓

LIVESTOCK



With the help of a cart these youngsters wheel milk cans from the barn to the milk house and are a very real help around the farm.

Don't Store Lamb Too Long

STORAGE tests on lamb held over a 12-month period in a home freezer at zero temperature, were recently completed by the Consumer Section, Canada Department of Agriculture. They determined that lamb cannot be stored indefinitely, even at this temperature, without losing something in palatability.

The lamb used in the test was a Grade A carcass of 40 pounds dressed weight. The wrapper used was a single wrap of locker paper of a type generally used for freezing purposes.

Six roasts from the hind and front were frozen, and roasts were removed every other month over the 12-month period. Loin, rib and shoulder chops were tested every month over the same period.

Taste-panels on the cooked meats agreed that roasts of lamb stored up to six months compared favorably with fresh lamb, but that after this period the meat lacked the full lamb flavor. A slight staleness in the fat was detected at seven months, and distinct off-flavors were noticeable after nine months storage.

After three months storage lamb chops compared favorably with fresh lamb, but after four months the meat lacked full lamb flavor and after seven months the chops were considered quite unacceptable.

Lamb frozen in pieces as stewing meat, stored well for only one month. The meat developed off-flavors very quickly after that time, probably due to the large proportion of fat.

Tests on cooked roasts of lamb that had been frozen after cooking confirmed that they could be stored three months without developing off-flavors. Minced, cooked lamb, which was stored for the same length of time, in cartons with polyethylene liners, dried out considerably and lacked flavor.

It was concluded, at the end of the tests, that it is best to store cooked meats in large pieces, rather than mincing it before storage. It was also

agreed that too long storage of lamb will result in a loss of flavor in the meat. V

Vitamin A for Pregnant Cows

STOCKMEN who are feeding low quality hay to their cattle could run into trouble from a deficiency of Vitamin A. According to Dr. J. G. O'Donoghue, extension veterinarian, Alberta Department of Agriculture, losses of beef calves due to a deficiency of Vitamin A have been heavy over the last three years.

This vitamin, essential for animal health, plays an important role in maintaining the health of the membranes lining the digestive and respiratory tracts. As it is found in adequate amounts in green growing plants, there is little danger of a deficiency in cattle on spring pasture, but in winter hay is the only natural source, and if the hay is of poor quality, the vitamin may be lacking.

New born calves suffering from Vitamin A deficiency may be weak and predisposed to disease, which explains why many calves suffering from this deficiency die of pneumonia or scours. Night blindness, watery eyes and even eye opacities may be observed. A calf may appear normal at birth, and develop degrees of blindness, lack of co-ordination, a staggy gait, and may even drop in convulsions with its legs and neck rigidly extended. These symptoms may occur any time during the first three months, and even later. They will not occur if the pregnant and nursing cow has had a diet that is rich in Vitamin A.

Blindness may be observed in yearlings that appear normal in all other respects. It is caused by the pinching of the nerve of the eye by the bones of the skull, and is permanent.

If the quality of the hay is doubtful a Vitamin A supplement should be provided for pregnant and nursing cows and in some cases for calves. It helps prevent expensive losses. V

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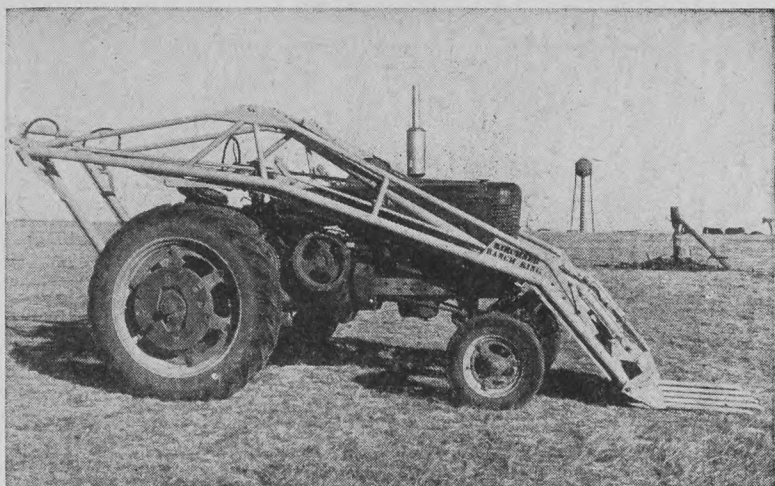
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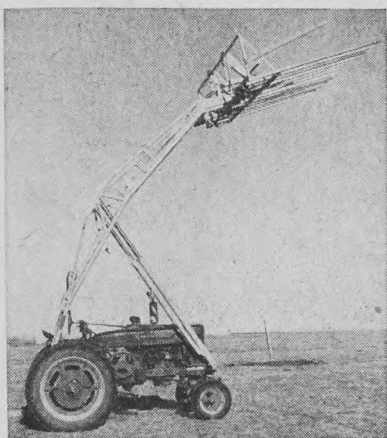
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LIVESTOCK

He Had to Have Livestock

WHEN P. J. Noster of Derwent, Alberta, began farming in 1942, he resolved to be free of the ties of livestock. Grain farming was his objective, though the up-and-down fields and a succession of high knolls and deep hollows, made water erosion a continuous threat, and had chased many farmers before him into livestock.

Now Mr. Noster is the first to agree that the land in his district must have livestock. Wheat, barley and oats were his first crops, with the land lying in fallow one year in three. Some of them were good. But frost stung some of his crops, drought burned some of them in the field, and occasionally dark and ominous clouds brought driving hailstones from the sky, flattening his waving fields of grain.

By 1949, with expenses on the two-section farm mounting and hardly enough money to pay the bills, he accepted livestock along with the chores, the inconveniences — and the revenue. Pigs went into feed pens, the first year. The next year he bought heifer calves at auction through the country, built a herd of about 15 females, and added a purebred Hereford bull.

Now five or six sows have been so profitable that the hog herd is likely to be expanded at the expense of the poultry flock, which has numbered as high as 500 hens. One quarter-section of the farm is down to tame grass, while additional acres of wild grass and slough hay provide more hay and pasture.

Home-grown barley and oats are ground with salt and mineral for the hogs; and every day a forkful of good green hay provides them with extra protein, vitamins and minerals. It helps with carcass grades, too, he believes.

Expenses have been kept low with the cattle, and despite a rigorous climate, they winter well in a coulee with only trees for shelter.—D.R.B. ✓

Silage Might Be the Answer

A SERIES of years in which the haying season, in many areas, has been wet, has resulted in some increase in the ensiling of feed crops. The making of silage consists essentially of packing fresh grass or other green material into a silo, pit, trench or stack. If done correctly and under proper conditions — conditions much less demanding than those required for the curing of good hay—a nutritious feed will result.

The Experimental Station, Swift Current, Sask., points out some of the advantages of silage. These include the fact that forage that might be unpalatable in the dry state can be used, as well as the fact that it reduces the danger of the grass being damaged by rain; silage is palatable, and has a high content of carotene and minerals; it takes little space for storing, is a form of feed that lends itself to being used as a feed bank, and is never endangered by fire; it can be fed

easily, and weed seeds are destroyed in the ensiling process.

Properly made grass silage will provide more protein and carotene in the ration than field cured hay, increases the Vitamin A content of winter milk, and helps to prevent an oxidized flavor in milk.

Silage can be made from grasses, or mixtures of grasses and legumes, that are ordinarily used for pasture or hay.

Those considering switching to silage might profitably write to the Experimental Station, Swift Current, Sask., and ask for the new bulletin, "Silage in Saskatchewan." The pamphlet discusses type and construction of silos, methods of harvesting and storing silage, and recommendations as to silage feeding. ✓

Avoid Bitterness In Cream

MOST bitter cream is produced between October and March. A number of isolated factors can be held responsible for this condition.

Cows that have been milking beyond their normal lactation period may produce bitter milk. Some cows, however, will produce bitter milk throughout an entire lactation. This bitter milk can be kept out of the cans by periodically checking the individual cow's milk.

Feeding and management practices may also be responsible for bitterness. It may develop when cows are on dry feed, especially if a poor quality roughage, such as oat straw, is being fed; and this can be corrected by feeding a well-balanced ration which includes succulent feeds. Adding freshly separated cream to cream that already has been cooled may be responsible for bitterness, as may cooling the milk from the evening milking and warming it again for separating in the morning.

In summarizing management practices L. M. Silcox, supervisor of dairy factory inspection, Alberta Department of Agriculture, suggests that dairymen should: (1) feed a balanced ration and good quality roughage; (2) separate milk immediately after milking; (3) cool the fresh cream before adding it to previous separations; (4) hold the cream cans at 40 degrees F.; and (5) periodically check the milk from individual cows. ✓

Canadian Registration For Landrace Hogs

THE Canadian government has decided to register Landrace hogs in Canada. This move follows the importation of Landrace hogs by a number of Canadian breeders, and the increasing of this breed in Canada.

Prior to this move the limited number of Landrace hogs bred in Canada have been registered in the United States. Most Canadian breeders of Landrace found the earlier arrangement satisfactory as most of the breeding stock offered for sale—at prices ranging over \$300 for weanlings—are exported to the United States. Having the animals already registered in that



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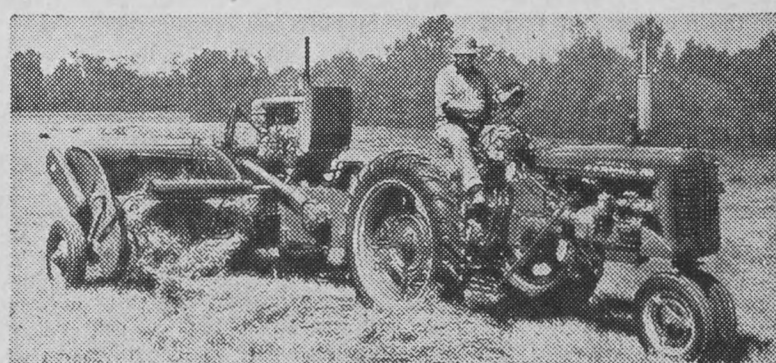
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MEETING PLACE

What makes the difference?

When a packer buys cattle he views each animal as a bundle of beef and certain by-products wrapped in a hide. The price he bids for each animal is based primarily on the number of pounds and the quality of beef which he estimates it will yield, valued at current selling prices. Cattle marketed at the same live weight often bring considerably different prices. Let's see why:

Quality is a Factor

The probable quality or grade of the dressed carcass is a primary consideration. Beef carcasses of the higher grades, e.g., Red or Blue brand, normally sell at a better price than commercial and well above lower grades, because consumer preference has been established for quality beef. But even within grades there are price differences according to weight of carcass, sex of the animal, degree of finish, etc. For example, lighter carcasses generally bring more per pound than heavy carcasses, although both may be in the same grade classification. Retailers discount heifer carcasses under steers because they are often patchier in finish and wastier on the block. A cattle buyer must

recognize these and other factors when he makes his bid in the sales alley or auction ring.

Yield Another Factor

The percentage of carcass to live weight varies sharply between animals of different market classifications and even between two animals of similar appearance and quality. In estimating the dressing percentage or yield of animals in any particular lot, the buyer has questions such as these in mind:

Are they fed and watered, or offered on an off-car or off-truck basis? Are they butcher steers—heifers—cows—bulls—canners? Are they grassers or well-finished cattle? How much finish are they carrying? Are they predominantly beef or dairy type? Are they short-haired and clean, or are the hides heavy and matted with manure?

All such questions have a definite bearing on yield.

Yield + Quality = Value

And so it is that the values of cattle bought for slaughter depend primarily on the quality and weight of the carcasses they produce and what that particular class of beef sells for. The following table serves to illustrate these points:

Dressed Beef Price per 100 lb.	Live Values per 100 lb. of Cattle Dressing—					
	40%	45%	48%	50%	52%	55%
\$20.00	\$ 8.00	\$ 9.00	\$ 9.60	\$10.00	\$10.40	\$11.00
25.00	10.00	11.25	12.00	12.50	13.00	13.75
30.00	12.00	13.50	14.40	15.00	15.60	16.50
35.00	14.00	15.75	16.80	17.50	18.20	19.25
40.00	16.00	18.00	19.20	20.00	20.80	22.00

From this it can be seen that if we have two animals weighing the same and producing carcasses of equal quality which sell for \$40.00 per 100 lb., one dressing 52% is worth \$20.80 per 100 lb. If the other dresses 55% it is worth \$22.00—a difference of \$1.20 per 100 lb. on the hoof. If, however, the first carcass were of lower quality, bringing only \$35.00 per 100 lb. the live value would be \$18.20 or \$3.80 less than the higher grade bullock dressing 55%.

In the case of a cow dressing 45% and worth \$25.00 per 100 lb. as beef, the live value becomes \$11.25 per 100 lb.

The higher the price of carcass beef the more dressing percentage affects the value of the live animal. Of course, the value of hides and other by-products are also calculated into the price of live cattle, but at any particular time they account for much less of the variation than yield and quality.



"DOC" BROWNELL'S CORNER

We've all wondered from time to time why daily quotations for apparently similar classes of cattle in the same market showed quite a range in the prices paid. But when you look at how two or three percentage points in yield affect

the amount of beef produced and how one step up or down in grade can alter value, it doesn't seem strange. These differences begin to show when the hide is off. The final test is when the carcass is on the butcher's block.

**THE INDUSTRIAL AND DEVELOPMENT
COUNCIL OF CANADIAN MEAT PACKERS**

LIVESTOCK

country was a convenience. However, breeders are reported to welcome the new move as a further step in the official recognition of the breed in Canada.

A Canadian Landrace Association has been formed by Landrace breeders under the Livestock Pedigree Act of 1949. President of the newly formed association is Laurence Lalonde, Brockville, Ontario, recently named "co-operative manager of the year" for the province of Ontario, for his work in co-operation; vice-presidents are Sydney Smith, Chatham, Ontario, and John Knudson, Meaford, Ontario. Secretary-treasurer is H. Gordon Green, Ste. Therese, Quebec, whose 1953 importation of Landrace hogs was the first private importation in America. V

Warbles Cut Profits

IT is doubtful if livestock producers can afford losses due to warbles in cattle and they are tolerated only because of the failure of stockmen to realize how large is the loss. The Alberta Department of Agriculture estimates that the annual loss in that province is in excess of \$3,000,000, and the loss on each infected animal is around \$5—a figure that would be quite as high in Saskatchewan and Manitoba.

The Department suggests that these losses are largely unnecessary. Two or three treatments at 30 to 40-day intervals, starting when the holes in the cattle's backs are as big around as a lead pencil, will reduce infestation and losses.

The recommended insecticide is a derris or rotenone—normally sold under the name of warble powder. Directions for preparing a wash are on the container. The insecticide—in wet or dry form—must penetrate the holes to kill the grubs. In a small herd and with dairy cattle, the wash should be scrubbed over the backs of the cattle with a stiff brush. The brush opens the crust over the warble lumps.

A high pressure sprayer will do the same thing. The recommended sprayer is one with a single nozzle gun with a 5/64-inch opening, and capable of a pressure of 400-450 pounds. In use the gun should be held 18-20 inches over the animal's back to give a four to six-inch spray.

The spraying of an individual herd is helpful, but a community "clean up" will almost eliminate warbles in a district. V

Fast Start For Small Pigs

A GOOD starter promotes good health and rapid gains in small pigs at the time when the most economical gains are made. It will reduce the set-back of the pigs when they are weaned. "The value of a good pig-starter in any swine raising program cannot be over-emphasized," says B. D. Owen of the Experimental Station, Beaverlodge, Alberta.

A pig starter should be balanced with respect to all essential nutrients, and fortified with extra vitamins,

especially vitamins A and D. An antibiotic is a good addition also. Pigs obtain greatest benefit from antibiotics early in life, and good growth responses with young pigs may be expected under almost any set of conditions.

Pig starters are available from commercial feed manufacturers. Alternatively they can be mixed on the farm, using a proven formula. They may also be made up following the manufacturers' instructions and mixing a good quality "hog concentrate" with farm-grown grains.

The grain portion of a pig starter is an important part of the ration. Oat groats are the best single grain for baby pigs, but may be mixed with approximately half their weight of wheat or barley, or a mixture of the two.

Whole oats should never be fed to young pigs weighing under 50 pounds; the hulls are indigestible, and irritation from them can cause digestive disturbances. V

"Feed-Ani" Swine Supplement

A COMMERCIAL product, sold under the trade name of "Feed-Ani," has been distributed in western Canada over the past three years. A natural, sedimentary earth deposit from Nevada, it contains approximately 80 per cent silica compounds and traces of other minerals. It has been widely advertised as having a favorable effect on the rate of gain and the health of livestock.

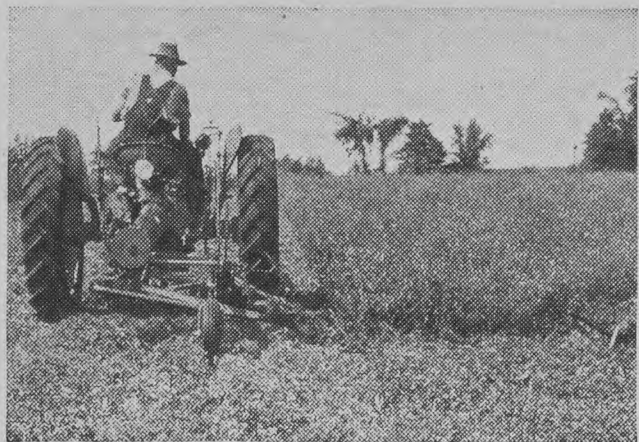
"Feed-Ani" supplementation of a pig ration increased the cost of gains by over 10 per cent," stated J. P. Bowland, associate professor of animal husbandry, University of Alberta. The addition of two per cent of "Feed-Ani" to a typical Alberta swine ration did not improve the rate of gain or the efficiency of feed utilization of the pigs.

Similar trials have been reported from the University of Saskatchewan where growing chicks were fed two per cent "Feed-Ani," added to commercial chick-starter mash. The growth of chicks and their relative growth efficiencies were depressed by an amount approximately equal to the dilution of the feed with "Feed-Ani."

The animal husbandry department of the University of Alberta suggests no evidence has been, as yet, produced by the distributors of "Feed-Ani" to justify its inclusion in livestock rations. V

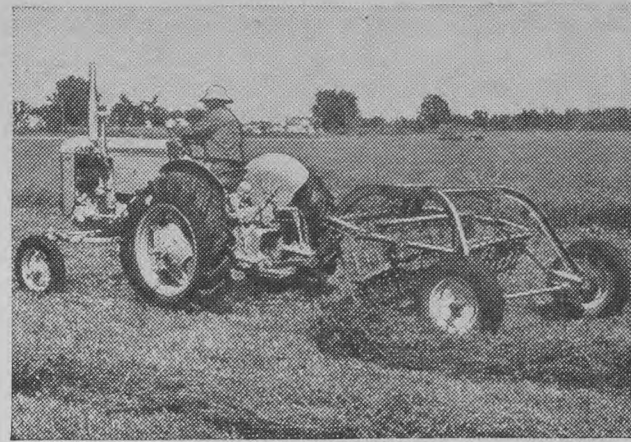
Sheep Eat Seaweed

SHEEP on Mud Island, off the coast of Yarmouth, Nova Scotia, eat seaweed to supplement their meagre grass supplies, and thrive on it. Although the island is vastly overpopulated with the animals, the latter do not appear the least bit undernourished. The sea "forage" is rich in minerals, which could account for the fact that disease among the flocks is almost unknown. Each year Mud Island sheep raise a good crop of lambs, and their wool is, if anything, a little better than the provincial average. V

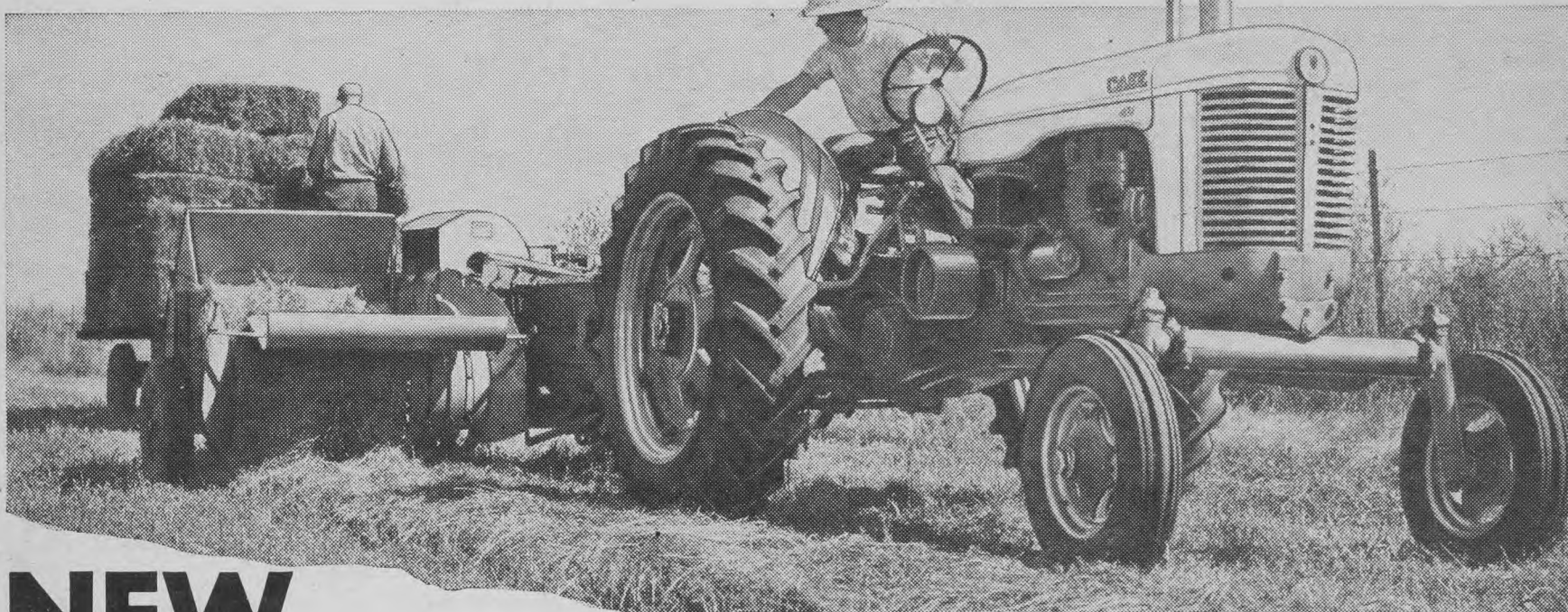


Single-wheel semi-mounted mower keeps haying costs down. Hooks up in minutes to nearly any modern tractor. Like Eagle Hitch and Side-Mounted models, it cuts fast and clean, maneuvers easily, lasts long.

New "200" Side Rake has side-stroke reel that shortens hay travel from swath to windrow, saves precious protein-packed leaves. Rakes clean on uneven ground, makes fluffy windrows that cure fast and evenly. Choice of 3-point or draw-bar hook-up. See the Model "170" Side Rake, too.



Bale Big Tonnage with PTO Economy

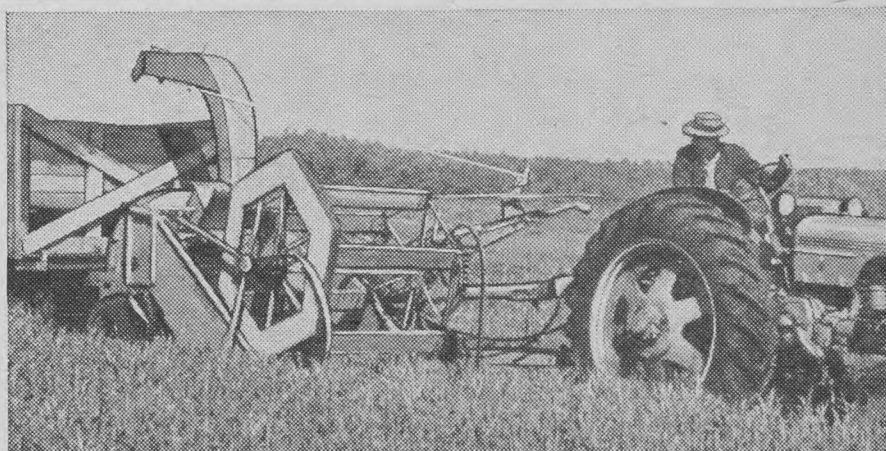


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"140" Automatic Baler

No extra engine to buy and to maintain. Double-plunger action slices hay between compression strokes to keep power requirements relatively light and even. Makes firm, full-weight 14 x 18-inch bales, twine-tied automatically to stay tied. The baler is so simple to adjust and to use that almost anyone can run it; so economical to buy that hardly any farmer can afford to do without it. It has capacity for big acreages and custom work. Constant Power Take-Off of all-new Case "400" Tractor (above) or other Case Tractor models makes PTO baling a snap. Engine drive available. See the Case "140" Baler at your Case dealer's—soon! Available on the Case Income Payment Plan that lets you buy when you need a machine, pay when you have money coming in.



Canada's Lightest-Running Choppers. Moderate power chops big tonnage fast with Case Choppers because simple design with few moving parts, light weight, oil-bath gears and anti-friction bearings pass your power along to the knives. You save still more power when you pick the 6-knife models with low-speed knife wheel. Wide choice of one-man, quick-change attachments saves valuable harvesting time.



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Mark here or write in margin any Case machines or tractors that interest you. Mail to J. I. Case Co., Dept. CG-55, Calgary, Edmonton, Saskatoon, Regina, Winnipeg, Toronto, London or Montreal.

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| <input type="checkbox"/> "140" Baler | <input type="checkbox"/> "TA7" Mower |
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Acres you farm _____ Student? _____

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FIELD



This scene demonstrates what water can do if allowed to get out of control.

Keeping the Soil In the Fields

The importance of adopting practices that will reduce soil drifting is as great today as it has ever been

IN many parts of the prairies soil tillage and cropping practices that are in general use will not control wind erosion. This has been partly concealed by adequate rain over the past few years which has helped to stabilize soil. However, at the Manitoba Agronomists' Conference in Winnipeg last December, D. A. Brown, agronomist at the Brandon Experimental Farm, stated that fields in western Manitoba were in a highly vulnerable state and that high winds this spring could result in serious and extensive damage to summerfallow fields.

Soil pulverization by too frequent or improper use of tillage equipment, and the complete destruction of available trash cover are principal factors responsible for encouraging soils to drift.

The continual use of disk type implements during the summerfallow year leaves the soil in a very fine state without the needed benefit of trash protection. Plowing buries most of the trash in the early part of the season and later tillage with a cultivator leaves the soil unprotected throughout the fall and winter and spring.

The initial and continued use of a cultivator has proved satisfactory when the size of the shovels is adjusted to meet the tillage requirements, says W. K. Dawley of the Reclamation Station at Melita, Manitoba. By reducing the number of cultivator shanks, and increasing the width of the cultivator shovels, more trash can be cleared through the machine.

The blade weeder has been used successfully at Melita, though heavy infestations of couch grass have reduced its usefulness in some fields. Dry, warm weather is needed for good weed kills. However, this implement kept more trash on the soil surface than did any other implement used.

The Reclamation Station does not recommend late fall tillage on fallow fields where wind erosion is a prob-

lem; such practice destroys the natural trash growth which, even when frozen, would protect the soil.

Other practices can be profitably used in conjunction with the selection of implements. These include strip cropping, crop rotations in which grasses and legumes enter into the cropping plan, the seeding of cover crops on fallow fields that might drift, and the planting of shelterbelts. **V**

Growing Grass For Extra Income

THE fact that wheat is on quota has resulted in many farmers casting about for alternative crops that will produce a cash income. It may be that the growing of grasses for seed production is such an alternative.

Commercial grass seed production is largely carried on by specialized seed growers who plant the grass in spaced rows; however, some farmers realize a good profit by taking one or two seed crops from a solidly sowed field before pasturing it.

Crested wheatgrass and intermediate wheatgrass should remain in good production for two years when grown under solid seeding, but Russian wild rye is a poor producer when solid seeded.

Under proper management—which includes fertilization and spaced rows—these grasses can be maintained in high production for three years or more. To accomplish this they should be planted in rows at least two and one-half feet apart, and between the rows should be cultivated. Some grasses require heavy applications of fertilizer (up to 100 pounds of 33½-0-0 per acre) for high seed production.

Crested wheatgrass, intermediate wheatgrass and Russian wild ryegrass should produce an average of 200, 100 and 100 pounds per acre respectively. Although the price varies from year to year, the Experimental Station,

SHEAR YOUR OWN SHEEP

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You make more money when you shear your own sheep—by machine. Hand-blades leave ridges—machine doesn't, so you get 10% more wool by machine and better price for it because of its longer fibre. Easy to learn to shear by machine and remove fleece from sheep in a few minutes. Save shearer's wages. **SHEARMASTER** has powerful, ball-bearing, fan-cooled motor inside rugged Bakelite hand-piece. Works from light socket 110-120 volts AC-DC. Built-in off-and-on switch. Professional type tension control. Includes long cord, extra comb and three extra cutters. Catalogue No. 31B-2. Has year round use for shearing the flock, tagging, crutching, removing wool from dead sheep, etc.

WRITE FOR BOOKLET "Tips on Shearing." 60 illustrations. Gives step by step, simple routine for shearing wool from sheep, leaving no wasteful ridges.

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FIELD

Swift Current, Saskatchewan, suggests that a grower might reasonably expect to get 10 cents to 20 cents a pound for crested wheatgrass, 25 cents to 35 cents for intermediate wheatgrass and 60 cents to 75 cents a pound for Russian wild ryegrass. ✓

Giving Flax A Head Start

FLAX is a poor weed competitor. For this reason it is important to use cultural practices that will result in a rapid, uniform germination.

Weak seed is likely to result in a thin stand, which will give weeds a better chance. Good seed should be planted, and if there is any doubt as to its viability it should be tested for germination. The use of a mercuric dust is almost certain to improve emergence by protecting the seed from soil-borne organisms.

If flax is sown too deep the plants will emerge unevenly and in a weakened condition and will be poorly equipped to meet the competition of more advanced weed seedlings. A seedbed which is carefully prepared and compacted will allow seeding into firm, moist soil at a depth of one-and-one-half inches.

High rates of fertilization have been known to retard germination. The Experimental Farm, Brandon, Manitoba, points out that the use of chemical fertilizer will often cause rapid development of the flax plants, which helps to hold weeds in check, but they suggest that if heavy fertilization rates are used the fertilizer should be drilled into the soil separately from the flax seed. ✓

Idle Tractors Cost Too Much

A TRACTOR that spends most of its time loafing in the fence corner can cost its owner almost three times as much per hour worked as one that spends its time industriously working in the field.

In a study of tractor costs on 124 eastern Canada one-tractor farms, costs per hour were found by the Economics Division, Department of Agriculture, Ottawa, to vary from 83 cents when used 694 hours per year to \$2.14 when used only 119 hours. Similar differences were found with other machines such as plows, drills, combines and haying equipment.

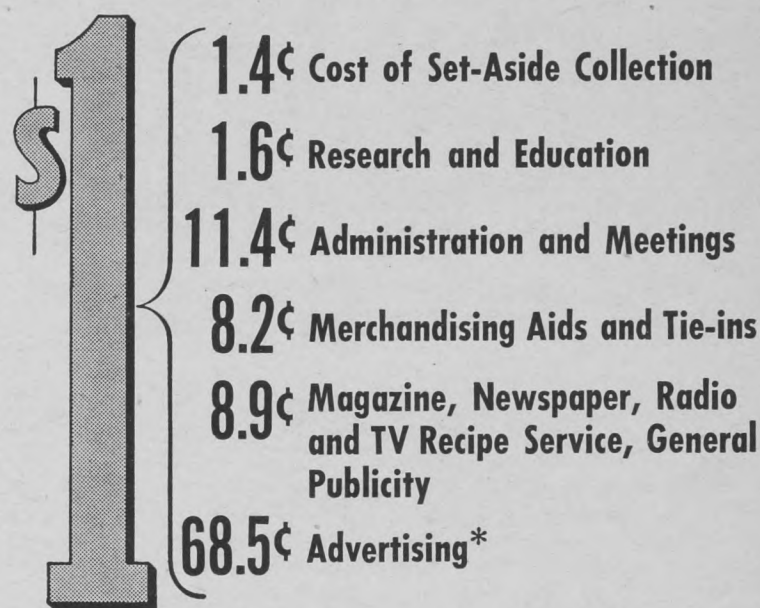
Horses, as a source of power, were more costly than tractors, partly because the tractors were used on more acres. Plowing an average of 34 acres a year with a two-furrow plow and three horses, the horse farmer incurred plowing costs of \$9.43 per acre; operators using a two-furrow plow and a two-plow tractor, plowed an average of 45 acres at a per acre cost of only \$3.02. On 41 Quebec farms horse mowers cut an average of 40 acres at a cost of \$2.42 an acre, and the tractors cut 77 acres at a cost of \$1.18 an acre.

The figures suggest that operators of small farms, in either eastern or western Canada, might reduce machinery costs by co-operating in the purchase of machinery. If one farmer owns a large tractor, one a small one, one a combine and another

a message to all

Dairy Farmers

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It is fortunate that the Canadian population is increasing at the rate of about 500,000 persons a year for our export markets for dairy foods have been slowly diminishing. Realistically, we must look to the domestic market to absorb most of our production of milk and cream. If we don't do our share to educate a fast growing population to the value of dairy foods, then we can expect to have more and more trouble with excessive stocks of our products.

Excessive stocks can lead to only one result . . . lower prices for your milk and cream.

Your program of advertising and promotion can only survive with loyal support from you during the 1955 June Advertising Set-Aside. Please be sure that you make your individual set-aside.

GILBERT MACMILLAN
President

DAIRY FARMERS OF CANADA

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Farmers across the country make hay faster, easier with a Compact "66". Says Cable Clanton, "Tight, square bales put up fast, that's what my "66" means to me. I've baled for hours without any broken bales at all."

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"Yes, I'd like to own a baler," said farmer after farmer, "but what one can I buy that's right for my size farm?"

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What made them buy? In price and size, the "66" makes ownership practical for almost any farm. Operating costs are low. Capacity is high . . . through faster pickup, more positive wad-board feed, knotters that tie bale after bale without a miss.

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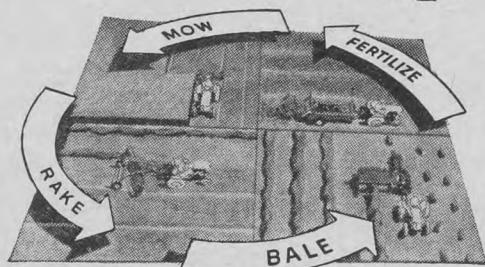
What about you? Wouldn't you like to make your haying easier, have your own baler ready to go the minute you need it? See your New Holland dealer!

The New Holland Machine Co., a subsidiary of The Sperry Corporation.

Certified Twine means Trouble-Free Baling! New Holland Twine is certified by the U.S. Testing Co. for full strength, quality and length. Now available at a new low price!



Don't let a lazy machine spoil your whole system. New Holland's Mower, Rake and "66" Baler are capacity-matched to harvest finest quality hay. New Holland's 130-bu. spreader saves trips to the field.



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Interested in a demonstration? ☐

FIELD

a hay baler the number of hours each machine can be used can be increased and costs reduced. ✓

Preparing a Seedbed

A MORE uniform stand of grain and higher yields can be obtained if a seedbed is properly prepared.

A shallow uniform depth of tilled soil must be established to give the drill a chance to place the seed at the desired depth in the soil. Where combination tillage and seeding machines are used it is important that the fields be free from ridges and hollows and hard and soft spots; to accomplish this pre-seeding tillage is necessary.

Tillage and seeding equipment should be suited to the land on which it is being used; machines designed for large, level fields will not do a good job on very hilly fields.

Every tillage operation during the summerfallow year and at seeding must be thorough and complete, advises the Experimental Station, Swift Current, Saskatchewan. The equipment should be well maintained and correctly adjusted. ✓

More Feed From Fewer Acres

THERE has been a steady, upward progression in the ability of alfalfa varieties to produce feed. Grimm alfalfa has been a widely grown and satisfactory alfalfa for many years; Ladak has proved its ability to outyield Grimm, and it would now appear that the new varieties, Vernal and Rambler, will outyield Ladak.

During the last 22 years Grimm and Ladak have been tested for their forage yielding ability at the Experimental Farm, Brandon, Manitoba. Ladak has averaged 860 pounds more hay per acre than Grimm.

Vernal, a newly developed alfalfa, has been tested against Ladak, and in the second year of the test the hay yield of Vernal was 400 pounds per acre greater than that of Ladak.

Rambler, the only creeping-rooted, pasture-type alfalfa suited to Manitoba conditions, was comparable in yielding ability to Ladak and Vernal. Rambler's big advantage is as a pasture alfalfa, as it suffers less from trampling than Grimm, Vernal and Ladak.

Vernal and Rambler seed will not be available this spring; it is expected that limited seed stocks will be available for 1956 plantings. ✓

Sources of Farm Income

FIELD crops supplied from one-twentieth to three-fifths of the income on Manitoba farms in 1954, in different parts of the province.

On District Experiment Substations in southwestern Manitoba 59.4 per cent of the farm income was realized from field crops and 23.1 per cent from cattle. Hog raising contributed 4.6 per cent and poultry 3.2 per cent.

On Illustration Stations in the inter-lake area income from field crops accounted for less than five per cent of total farm income, and 43.5 per cent was earned from the sale of cattle and dairy products; hogs contributed 21 per cent and poultry 18.5 per cent of the total farm earnings.

In the Red River Valley approximately 60 per cent of farm income was from field crops; 28.5 per cent came from poultry enterprises.

In the mixed farming areas of north and northwestern Manitoba field crops provided 60 per cent of total farm income—approximately the same percentage as in the drier southwest and the fertile Red River Valley. In the northern area the sale of cattle and dairy products amounted to 21.5 per cent of total income while hogs provided four per cent and poultry eight per cent of total income. ✓

Sawflies Threaten Saskatchewan Crops

There is good reason to believe that sawflies will take a considerable toll of vulnerable crops if precautions are not taken

SAWFLIES are a threat to grain crops in Saskatchewan in 1955, according to R. E. McKenzie, director of the plant industry branch, Saskatchewan Department of Agriculture.

Surveys by Canada Department of Agriculture entomologists show severe sawfly infestations in Saskatchewan through most of the area west of the third meridian and north to Saskatoon. Moderate infestations are likely even outside this area, especially on the Regina plains and south to the border.

The wheat stem sawfly is a native insect which lays eggs in wheat stems during the two to three-week period beginning about the middle of June. The grubs that hatch feed inside the stem until just before harvest when they move to ground level and girdle the stem. They overwinter in the underground stubs of the wheat plants.

Sawfly losses may occur in any one of three ways: the grubs take nourishment from the head; weakened stems may break over during storms and so not fill and, finally, stems break off at ground level when ripe and cannot be picked up.

Most of the sawflies that lay their eggs in the new crop come from nearby infested stubble. When early seeded wheat or other susceptible crops are seeded on or adjacent to infested stubble severe losses become very probable.

The weather will influence the actual amount of damage done in 1955. Controls are still desirable.

The most effective single control measure is to seed resistant varieties of wheat, or other crops which the insects do not attack. Chinook and Rescue wheat are highly resistant to

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Big new POWER choice! Two big new 6's, new V-8



The new Dodge is actually **ONE FOOT LONGER** than its largest selling competitor!

BIG-CAR LENGTH—Dodge for '55 is by far the *biggest car in the low-price field!*

It's 12 inches longer overall than its leading competitor. In fact, you'll find that the big new Dodge is even longer and roomier than many automobiles costing hundreds of dollars more!

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You'll enjoy a commanding view through the Dodge swept-back New Horizon windshield. It *truly* wraps around at the top as well as at the bottom.

BIG-CAR COMFORT—The new Dodge rides like the big car it is!

Wider front tread, wider rear springs, and longer wheelbase contribute to your riding comfort and safety.

Dodge interiors are extra roomy, and they are delightfully decorated in new colour-coordinated fabrics and trim.

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You'll enjoy seeing and driving the beautiful new Dodge. There are a dozen Mayfair, Regent, and Crusader models... plus the brilliant, 183-horsepower Dodge Custom Royal V-8, high-styled aristocrat of the Canadian road! Manufactured in Canada by Chrysler Corporation of Canada, Limited.

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THE COMBINE WITH BUILT-IN STRAW BALER AND CHAFF SAVER



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1. It Bales Your Straw and Chaff Compactly—No Waste.
2. 60-Bushel Grain Hopper speeds up operation.
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Every CLAAS combine sold has Behind it Enough Spare Parts for Ten Years' Service. Mobile Service Trucks are Maintained Because we Consider Parts and Service our Greatest Obligation Once a Machine is Sold.

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**LOADS YOUR WAGON OR TRUCK
 15 FEET HIGH IN ONE OPERATION**



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- Equipped with the foolproof CLAAS knoter.
- Saves labor and time. Cuts operational costs in half. Will pay for itself in one season.

THEREFORE — THE CLAAS IS THE BEST BALER INVESTMENT ANY FARMER CAN MAKE!

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FIELD

sawflies in normal years on most soils. Flax and oats are completely immune to sawflies and all recommended barley varieties, with the single exception of Hannchen, are highly resistant. Some varieties of durum wheat are subject to varying degrees of damage.

Damage to susceptible varieties may be reduced by late seeding, which will miss the main flight of the sawflies. Where the infestation is severe, vulnerable varieties should not be seeded before May 15. Other control measures include shallow spring tillage of infested fields to reduce sawfly emergence, and the use of trap crops seeded about a rod wide around susceptible crops.

"Community action is necessary to control sawflies in heavily infested areas," said Mr. McKenzie. He believes that in view of the heavy infestation such action is warranted.

Maps showing the area of infestation have been distributed to agricultural representative and municipal offices, and persons in doubt as to the infestation in their own area are advised to consult these maps. V

You Can Control Wild Oats

by L. H. SHEBESKI

Shallow Seeding And Fertilization

LAST month the need to prepare a seedbed early in the spring and delay seeding for at least three weeks was discussed. At the time this article is being written, it appears that seeding could become general earlier than usual. Therefore, even with a three to four-week delay in seeding, the grain crop might be planted in late May. Where this is possible, it will be safe to seed wheat or the higher yielding late maturing varieties of barley.

The grain crop should be sown shallow, providing the seed is sown into moist soil. Shallow seeding plus the recommended fertilizer and rate of fertilizer specific for the area will give the grain crop a quick start.

Special treatment may be necessary for low places such as coulees, waterways, pot holes and depressions in fields, which are usually much more heavily infested than the higher, better drained land. Low spots are often bypassed in land preparation in the spring. These low spots may not be dry until the rest of the land has had a crop of wild oats destroyed and is ready for seeding. If the entire field is then seeded—as it will be—the low spots will be infested, and should be cut for green feed when the wild oats are beginning to head. V

(Wild oats control is becoming an increasingly important problem. For this reason, The Country Guide has invited Professor L. H. Shebeski, head of the Plant Science Department of the University of Manitoba, to provide our readers with suggestions, from time to time, for the control of this costly weed. Each article will be short and practicable; and the suggestions offered will be sufficiently timely to permit of immediate use.—ed.) V

HORTICULTURE



Here are some of the floral exhibits at the Stettler, Alta., Garden Club Show. Note that they are well spaced to permit adequate viewing and appreciation.

Stettler Garden Club

WE have recently received some very welcome information from Mrs. M. Costigan of Stettler, Alberta, about the Stettler Garden Club, which has been successful enough for long enough to have held its 20th flower show in August, last year.

Mrs. Costigan says, "We know our garden club has done much to improve our town. Residents vie with one another to keep their yards looking well; and we have been told that Stettler is one of the prettiest little towns in Alberta."

We do not know how many members the club has, but there should be a good many, because membership is only 50 cents a year, with a ten-cent entry fee for each entry in the show, held each year at the end of August. Last year there were 85 classes, including, we presume, the outdoor competitions, which include special classes for lawns, vegetable gardens, decorative windows, rows of sweet peas and other flowers, church grounds and public grounds.

Indoor classes at the show include crabapple and other fruits, potatoes, tomatoes, flowers of all kinds, bouquets, house plants and decorative tea tables.

We seem to sense the fact that the Stettler club is very proud of its displays of sweet peas and gladioli. In fact, the whole town must be proud of the club, because every merchant in town contributes a prize and some professional men also. The two banks each donate handsome trophies for the best gladioli and sweet peas, respectively, in the show.

Keep up the good work, Stettler. It isn't every local club or horticultural society that draws exhibits from the farms of the surrounding district as well as from towns 30 miles away. ✓

Sour Cherry Pie Coming Up

NOW comes word from Ottawa that someday we may have home-grown cherry pie on the prairies—real sour cherry pie, we mean. It appears that Dr. F. L. Skinner, that veteran Manitoba horticulturist, plant breeder and nurseryman, has done it again.

He hasn't produced any trees that bear ready-baked pies, but it is a sure thing that if prairie gardens could

grow the sour cherries, the pies would materialize pretty quickly. The trouble has been that there have been reasonably hardy sour cherry varieties, but no satisfactory rootstock, on which to graft and grow them. Dr. Skinner has developed a new species, *Prunus dropmoreana*, which produces seedlings that are uniformly vigorous and hardy at least as far north as Dropmore, and which combine ease of budding, non-suckering habit and apparent compatibility.

The new root stock has only been tried for two years at Morden, but it has been tested with various cherry types and varieties, including the well-known commercial variety, Montmorency.

A note from Ottawa ends up on a sour note, which, while fitting, is nevertheless disappointing. "Gardeners," it says, "are urged to be patient until the new understock becomes available for general planting." ✓

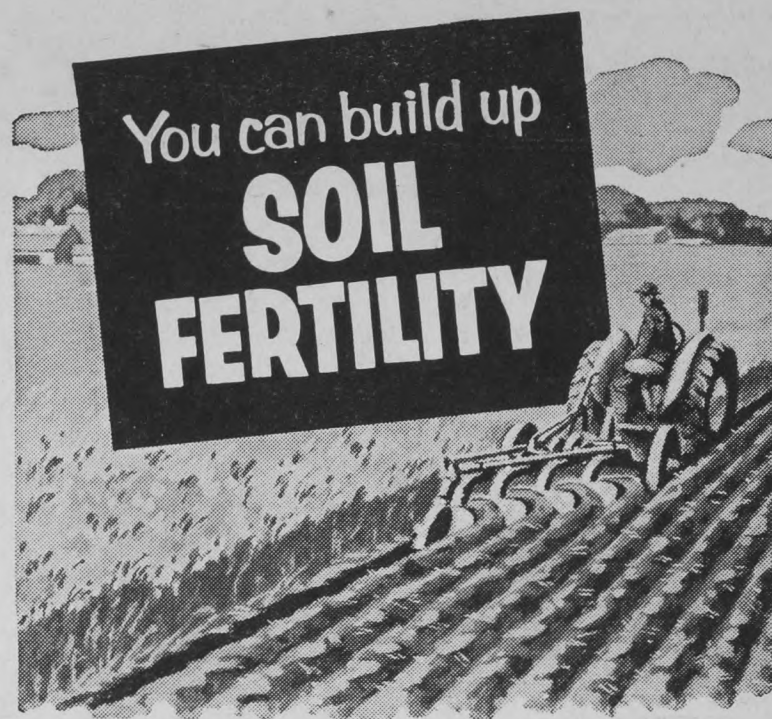
Letter from Dr. Patterson

THE regular spring letter (No. 10) from Dr. C. F. Patterson, head of the Department of Horticulture at the University of Saskatchewan, came to hand just too late for our April issue. Nevertheless, mention of some items may be useful yet.

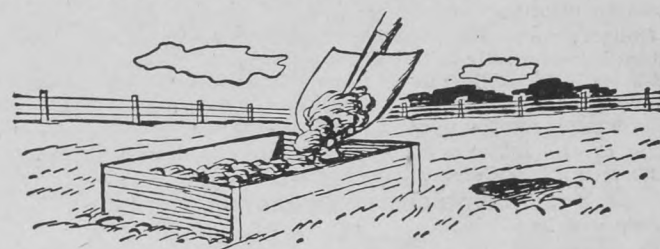
Dr. Patterson puts in a word about peonies which he calls a queen among hardy perennials. The highest rated variety in commerce, he said, is Kelway's Glorious, a magnificent variety which is blush-white in color blanching to white. A good white variety is Festiva Maxima; Philippe Revoire, Longfellow and Karl Rosenfield, are good reds; while three good pinks are Monsieur Jules Elie, Sarah Bernhardt and Therese. Interested Saskatchewan readers can get a copy of the pamphlet "Let Us All Grow Peonies" by writing to Dr. Patterson's Department.

If you are interested in gladioli, Dr. Patterson says that the Jubilee Regional Gladiolus Show, to be sponsored by the Saskatoon Gladiolus Society, will be held in the Bessborough Hotel, Saskatoon, August 26 and 27. Exhibits are expected from the four western provinces and Dr. Patterson expects that the show will put up "one of the finest collections of show spikes of the gladiolus ever exhibited."

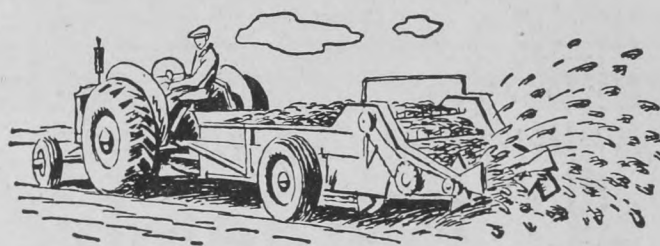
The Horticultural Department at the University has a new seedling geranium, named Peach Blossom. A



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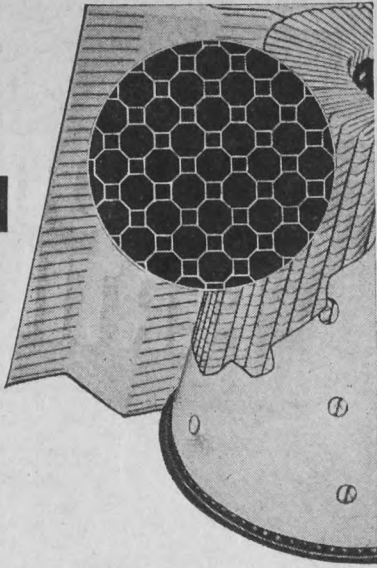


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HORTICULTURE

few rooted cuttings of this variety and of "Pink," introduced two years ago, may still be available. Send a dollar for three. V

Why Not Grow Evergreens?

R. H. DUNLOP, Forest Nursery Station, Indian Head, Saskatchewan, thinks that no farmstead shelterbelt system ought to be considered complete, unless it has some spruce, or pine, or both, in it. He argues—and rightly—that evergreens add beauty and contrast at any time and are always much appreciated during the long dormant season.

He mentions white spruce, Colorado spruce and Scotch pine as highly recommended more or less generally in the prairie provinces; and jack pine, native larch (tamarack) and Siberian larch as having many commendable features. "Spruce and Scotch pine," says Mr. Dunlop, "have a known life span of 40 to 50 years, and growth in height ranges from 8 to 12 inches per year over a 35-year period."

Evergreens may be used in many different ways. They can be used as extra rows of trees in the shelterbelt, at 8 to 16 feet distant from the deciduous rows and four to eight feet apart in the row. They can also be used singly, or planted in clumps or bluffs, or 5 to 15 or more trees, spaced four to eight feet apart. At these distances apart, the trees should form a complete canopy, or ground covering, in from six to ten years.

Generally, white and Colorado spruces are recommended for the heavier soils, because they are frequently less vigorous on lighter sub-marginal soils. On the other hand, pines prefer the light, sandy and loamy soils, which absorb water more readily, and are more easily penetrated to a considerable depth by roots. The same is true of the larch or tamarack. V

Crabapple Industry Needed

A RECENT statement from the Experimental Station at Morden suggests that a crabapple industry is needed in the prairie provinces. By this is meant the planting of crabapple orchards primarily for commercial production. Morden calls attention to the fact that specialized crops are already being pushed into the prairie regions for various reasons, including changes in the use of labor, the need for more diversification in agriculture, the increase in population, and the growing demand for commercially prepared products, both new and old.

It is pointed out that a number of crabapple varieties have proved to be hardy and productive over quite a large area. They are, of course, especially successful in areas which are sheltered from the north and the west, and have a dependable supply of moisture. Nine varieties are mentioned, each of which has some unique characteristics sufficiently valuable to give the fruit strong consumer appeal. The Fruit and Vegetable Laboratory at Morden has carried on studies, for

various food purposes, of a large number of varieties, and considers the most promising crabapple varieties for commercial production to be: Dolgo, Bedford, Kerr, Osman, Quality, Trail, Renown, Rescue and Magnus.

The Dolgo crab is outstanding for jelly, because of its rich red color, its high acid, and delicate flavor. Bedford, Osman, Kerr and Quality are valuable because they bear fruit of uniform and desirable size for canning. These may also be used for jelly, although neither the yield nor color of product are as attractive as that made from Dolgo. Quality is recommended as having particularly good texture and flavor when canned.

Trail and Renown, both being sweet and mild, are popular for eating out of hand. They are not, however, recommended for canning, or for jelly. Rescue is both productive and early maturing, and may be used for canning, jelly or eating fresh. Magnus, it is reported, makes a very attractive canned product. It is a yellow variety, but for canning it should have spices added, as well as red color.

It is worth noting that the raw fruit of Magnus and Dolgo normally have twice as much Vitamin C as do tomatoes, and most of the varieties mentioned have a high nutritive value by comparison with other apple products. V

Wire Markers For Garden Rows

INSTEAD of using the old stretchy string or wire for marking out rows in the garden, try galvanized or aluminum wire stretched tight on the ground. Use metal rods, preferably wagon box end rods, as they are easily pushed into or pulled out of the ground. These will hold the wire snug and tight when stretched out.

When the wire is tight on the ground you can rake along on top of it and let the hoe slide along against the wire while making the seed trenches. The row will be perfectly straight and a pleasure to see. On long rows use two wires the desired distance apart. Plant half a packet of seed on one row and the other half on a second row. This saves a lot of steps and time when planting and harvesting.—B. E. Lyon, Man. V

Black Raspberries

MRS. O. E. CHARTER, who lives at Milestone, about 40 miles southeast of Regina, has written us that she has been able to fruit black raspberries on the Regina plains.

She set out four bushes in 1951, which were obtained from an Eastern seed house. They bore some that year and very little for the next two years, but Mrs. Charter reports: "Last year we had an abundance of luscious berries from them."

One good thing leads to another, and this year Mrs. Charter expects to try some blackberries. A long time ago in Ontario, and no doubt still, these were often called thimbleberries (from their shape) or kittatinies. Attempts to grow the tenderer soft fruits are risky on the prairies, but it is fun, nevertheless, to try. V

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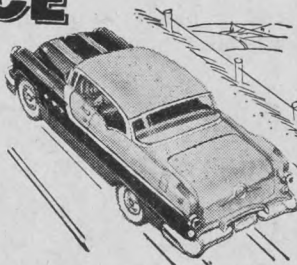
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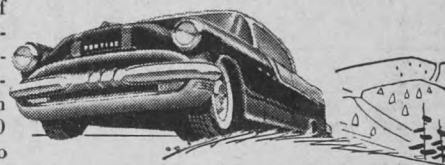
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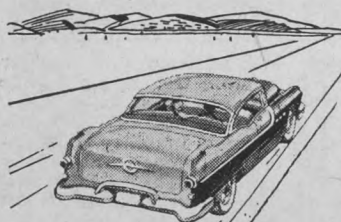
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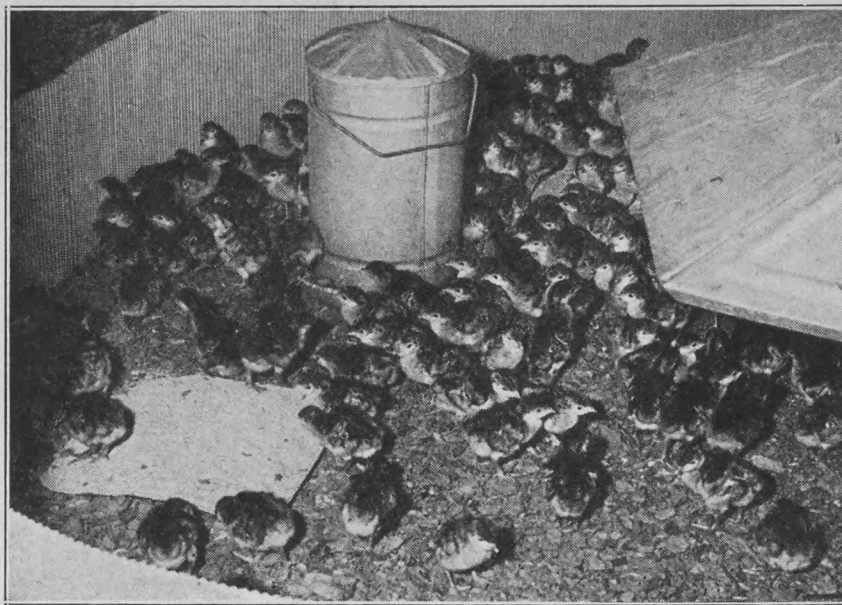
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POULTRY



These day-old Broad Breasted Bronze turkey poults on the Cuntens Turkey Farm, Sooke, Vancouver Island, have ample space to move around.

Don't Crowd Turkey Poults

A COMMON error during the brooding period is to overcrowd turkey poults, especially in early season brooding. Each poult requires no less than three-quarters of a square foot of space when started in the brooder house. Under good brooding conditions, this should be ample until they approach five weeks of age. After this, if you are unable to give them access to a clean grass run, or a sun-porch, serious overcrowding will result. One of the first indications you will have of this condition will be a difficulty in keeping the litter dry. If you must keep the birds confined, you will have to provide additional indoor space because damp litter favors the development of poultry diseases, such as coccidiosis. Extra space can often be found in sheds or buildings not sufficiently well built for early brooding, although a small amount of supplementary heating will be needed in many cases. Modern infra-red ray brooders will prove very satisfactory during this second stage brooding, if power is available on your farm.

Overcrowding usually causes an uneven growth rate, mainly because it results in a shortage of feeding and watering space. If growth is uniform, and the birds well feathered, it is a good indication that your space allotment is satisfactory.

Leghorn Capons

ALTHOUGH day-old Leghorn cockerels are considered a total loss by many hatcheries, often selling for as little as \$1.50 per hundred, they can bring good profits as Leghorn capons. Many U.S. poultrymen buy these cockerels at give-away prices, caponize them at four to six weeks, and produce a six to seven-pound quality meat bird at a minimum production cost.

The initial cost of day-old Leghorn cockerels of about one and one-half cents apiece, as compared to 10 cents per bird for heavy-breed cockerels, is not the only feature in their favor. Leghorn capons are also docile, and easy to raise—they are not always flying over the fence into your garden.

They can be raised with equal success in confinement, or on the open range. People who live in town find them suitable for the back yard. The birds make cheaper growth and weight gains than most fowl, and, when it comes to eating quality, the Leghorn capon just can't be beaten.

Egg Washing Solution

A NEW egg-washing compound, designed for washing eggs by hand, or in any of the machine types now in use, has just been announced by an American chemical company. Mixed with a given quantity of water, it forms a tasteless, odorless, non-poisonous, germ-killing solution which thoroughly cleans eggs in one or two minutes of washing, at a reasonable cost. The solution softens and removes dirt quickly, in hard water or soft, giving a substantial saving in time and labor—a half-gallon is enough for more than 100 average washings.

The dip solution is made by adding one-half ounce of the new compound to two gallons of water. By destroying bacteria which might enter through the shell, it stretches the storage life of an egg, and does this without harming the shell's natural bloom. Tests of the solution conducted on a number of farms, show that it does not affect egg hatchability, or taste. Diluted, it can also be used as a spray for disinfecting poultry shelters, and other dirt-collecting areas.

Avian Tuberculosis

THE principal bacterial killer of poultry in Alberta and Saskatchewan is tuberculosis. Taking the whole of Canada, this disease accounts for more than one-third of all poultry carcasses condemned in establishments that are under veterinary inspection. The biggest single cause for the spread of this infection is poor poultry management.

Avian tuberculosis generally develops slowly, and appears in birds of one year or older. As a rule the whole flock is not affected—one of the first symptoms observed is a few of the birds "going light." These become

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POULTRY

very thin, and frequently go lame, but their appetites usually remain good. Birds that have died from this disease are thin and emaciated in appearance, particularly in the breast and thigh muscles. The most typical lesion found in tubercular chickens is a spotted liver.

The disease is spread by infected droppings contaminating the litter, feed, and water—the organisms thus being ingested by healthy birds or other livestock. Because of this, infected poultry are a special problem on a mixed farm; swine are very susceptible to avian tuberculosis, and contract it readily when allowed access to infected premises or diseased carcasses. In turn, the swine can infect poultry, with the result that nearly all cases of swine tuberculosis are caused by the avian organism. Chickens should also be kept clear of the cattle barn—cattle may become sensitized through contact with infected birds and show a reaction when tuberculin tested.

No treatment or medicinal agent will prevent or cure tuberculosis in birds. Once the disease has gained a foothold, the only way it can be eradicated is to destroy the entire flock (both young and old birds), and burn or bury the carcasses. Following this, all buildings and runs used by the flock must be thoroughly cleaned. Tuberculin testing of poultry flocks is not generally recommended. However, where the disease is suspected in breeding flocks, the test may be applied by a veterinarian to determine how many are infected. Even in breeding flocks, if infection is known to be present, the whole flock should eventually be destroyed.

But the best course is to prevent the disease from getting started at all. As in most poultry diseases, this is generally a matter of adopting sound management practices. Poor flock management, from a disease standpoint, includes keeping birds on old ranges with no systematic range rotation, and allowing them access to stagnant, polluted water, manure piles, and dead carcasses. Rearing new pullets with old hens, and keeping birds on damp litter are other sure roads to disaster. ✓

Problems of Incubation

THE first rule for getting maximum hatchability in your incubator is to put the best quality eggs in the machine—no incubator yet invented will hatch an infertile egg. A number of factors enter into hatching egg quality, and the results you will obtain from them.

One important factor is egg fertility, involving the inherited characteristics which affect hatchability, and a good deal still remains to be done in the field of breeding for this result. Proper handling, feeding, and general nutrition of the breeding flock also play a big part in egg fertility, although fertility alone does not decide whether or not an egg will hatch.

Hatchability is actually a combination of fertility and viability. The latter can be described as the vitality of the egg's germ cell, or the strength of

the spark of life contained in it. An egg that is both fertile and high in viability will hatch, even in the face of considerable abuse. But a fertile egg which is low in viability will only hatch if conditions are ideal for it to do so. Many apparently infertile eggs would have hatched if they had received proper handling from start to finish. This includes prompt gathering, proper cooling, good sanitation, and cleanliness, plus storage at correct levels of temperature and humidity, and within a safe maximum length of time.

Assuming you have good eggs, and have handled them carefully, there are certain essentials of proper incubation; these are temperature, humidity, air circulation, turning, sanitation, and fumigation. The most important single factor among them is temperature—improper temperature can kill a hatch, or greatly affect both its quality and its percentage. But so can improper humidity levels, although this is sometimes overlooked because the effects are not nearly as dramatic. When it comes to turning the eggs, not only the number of turns per day, but also the regularity and angle of turning are important to the success of the hatch. Sanitation and fumigation are simply a matter of good housekeeping, and should be basic practices for all poultrymen.

Although the hatcher, and conditions for hatching are extremely important in the final three days, your chicks are made in the incubator, rather than in the hatcher. Unless conditions of incubation have been right throughout the development of the embryo within the incubator, no hatcher can salvage the hatch. To guarantee this, conditions must be favorable both inside and outside the incubator.

No matter how good the air distribution system of an incubator is, it will not supply the proper quality and circulation of air unless the incubator room is properly ventilated. Without this, proper ventilation within the machine is impossible.

Whenever your hatching results are not measuring up to expectations, you should investigate every one of the factors mentioned above. Any one, or combination of them could be responsible for your poor showing. ✓

Healthy Pullets

THE growing period (after the birds have left the brooder house, and before they have been put in the laying house) is very important in the development of sound, healthy pullets. You may think that this is the time to skimp on feed so as to save money, but this is false economy. Don't make runs out of good chicks by inadequate feeding during this period. You can save feed by using properly constructed feed hoppers, and keeping them only half full. Another important point in feeding is not to upset the balance by adding extra feedstuffs. Commercial feeds, chick starters, and growing and laying supplements are scientifically prepared with all the essential vitamins and minerals in proper balance. ✓

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For new construction and for remodelling old, weather-beaten walls, J-M Cedargrain Siding Shingles have multiple advantages. They come in beautiful colors. Pre-punched for nailing, they are easily and quickly applied. Weatherproof and rotproof, they never need

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MAKE YOUR FINAL PAYMENT BEFORE MAY 31 and protect your family against possibilities of costly hospital bills. Your first payment protects your family until June 30. Remainder of the tax is due May 31. If it is not paid by that date, there will be a break in your protection from July 1 until one month after the date of final payment.

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FARM YOUNG PEOPLE



Members of the newly formed Swastika Beef Club of Arelee, Saskatchewan, visiting the Provincial Seed Fair. Club leader George Kowalenka at left.

Dakota Clubs Assist Grainmen

DOWN in North Dakota, 4-H members have ended their first year of organized effort to protect stored grain on farms from damage by rats, mice, birds, and insects. Grain farmers and handlers in their State had been up against a tough problem in keeping food grain free of rodent filth and insects, so local club members decided to pitch in and do something about it. The grain sanitation situation was more than a mere annoyance. It had become critical from an economic standpoint—two carloads of North Dakota grain had already been condemned in a tightened-up enforcement of U.S. Pure Food regulations.

At the end of this crop year, the 4-H crusaders had chalked up a sizable effort—over 371 members in 44 clubs had inspected a total of 462 granaries and storage buildings. This represented a total storage capacity of 1,054,568 bushels. They had also cleaned 163 granary areas, protected 75 bins from rats and mice, fixed 70 foundations, closed 137 openings to bins, and baited 211 storage areas. Similar measures were taken to protect food grain from poultry and insects, and to guard it from moisture and contamination during handling. In addition to this, club members found time to give 65 talks on grain sanitation, 36 demonstrations on sanitation methods, and prepare six window displays.

A stepped-up program for 1955 calls for the active participation of 1,000 members, many of whom will work along with their parents in keeping food grains clean. Their efforts will have a marked bearing on farm income, because grain that doesn't meet standards for human use can be marketed only as livestock feed, at a sharp reduction in the regular market price.

Clothing Projects A Sure Winner

"EVEN when you lose, you win," if you enroll in a 4-H clothing club. Here girls learn the principles of craftsmanship—how to thread, adjust, and care for a sewing machine, and operate it efficiently. They come to know the various fabrics, so they

can choose cottons which won't fade; to learn the best points of "miracle" fibres, and buy woollens that have been treated so they will wash without matting. If clothes are to be becoming, there is much to learn about fashion, line, and color. 4-H girls often have a chance to model their clothes, and to demonstrate clothing care. A great deal depends on how clothes are hung, and washing sweaters is an art in itself.

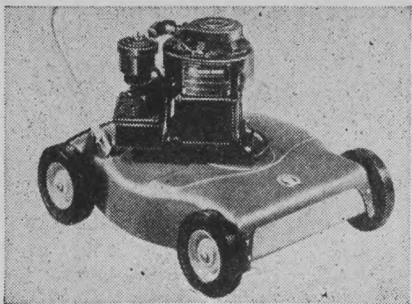
Tangible Profits

THE March issue of The Country Guide gave a couple of instances where 4-H club members in the United States had been well paid in dollars and cents for the efforts spent on their various projects over the years. We have a few more to add this time—some of them right here in Canada.

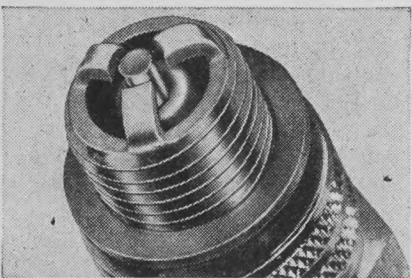
In the case of Miriam Stevenson of Winnsboro, South Carolina, who was recently chosen "Miss Universe," it's not too much to suggest that part of her poise was acquired during her eight years of active 4-H work. A dairy calf club member, Miriam each year showed one or more of her Guernseys at either a county, district, or state show; she won many prizes, including a special award for preparation and showmanship. Following high school, she sold three of her animals to help finance a college course in home economics. From her first entry in a beauty contest in 1952, Miriam went on to be chosen "Miss United States" in 1954, and finally to the highest award, "Miss Universe." After winning this honor she was offered a Hollywood contract, but declined in favor of continuing her home economics course.

At Kamloops, British Columbia, 4-H members Jean Pringle and Dennis Atkinson won the grand and reserve championship awards with their beef entries at the Christmas Fat Stock Show and Sale. Jean received \$1.15 a pound for her 950-pound calf "Sonny Boy," and Dennis 90 cents a pound for his 915-pound steer. The average price at the stock sale was only 25.27 cents a pound. 4-H members concentrate on quality stock and efficient management, a pretty good guarantee of top prices when the finished animals are put up for sale.

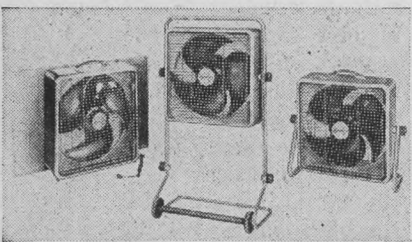
WHAT'S NEW



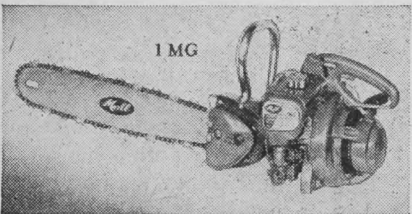
This 18-inch rotary mower has a side-trimmer which, according to the manufacturer, eliminates hand trimming around trees, fences, buildings and hedges; it is adjustable to several cutting heights. Sticks or stones that are picked up are deflected downward. (Bolens Products.) (78) ✓



According to the manufacturer, if one electrode on this triple-electrode spark plug burns or erodes beyond the most efficient gap setting, two others remain properly set to ensure complete combustion. A solid copper gasket replaces the folded copper; the insulator is said to have a very high density. (Auburn Spark Plug Co.) (79) ✓



These home circulating fans have sealed, silent motors, and are said to move up to 3,920 cubic feet of air a minute. The window fan can be used as either an intake or an exhaust fan. The others can be moved about the house to cool too-warm rooms. (Waldie and Briggs Inc.) (80) ✓



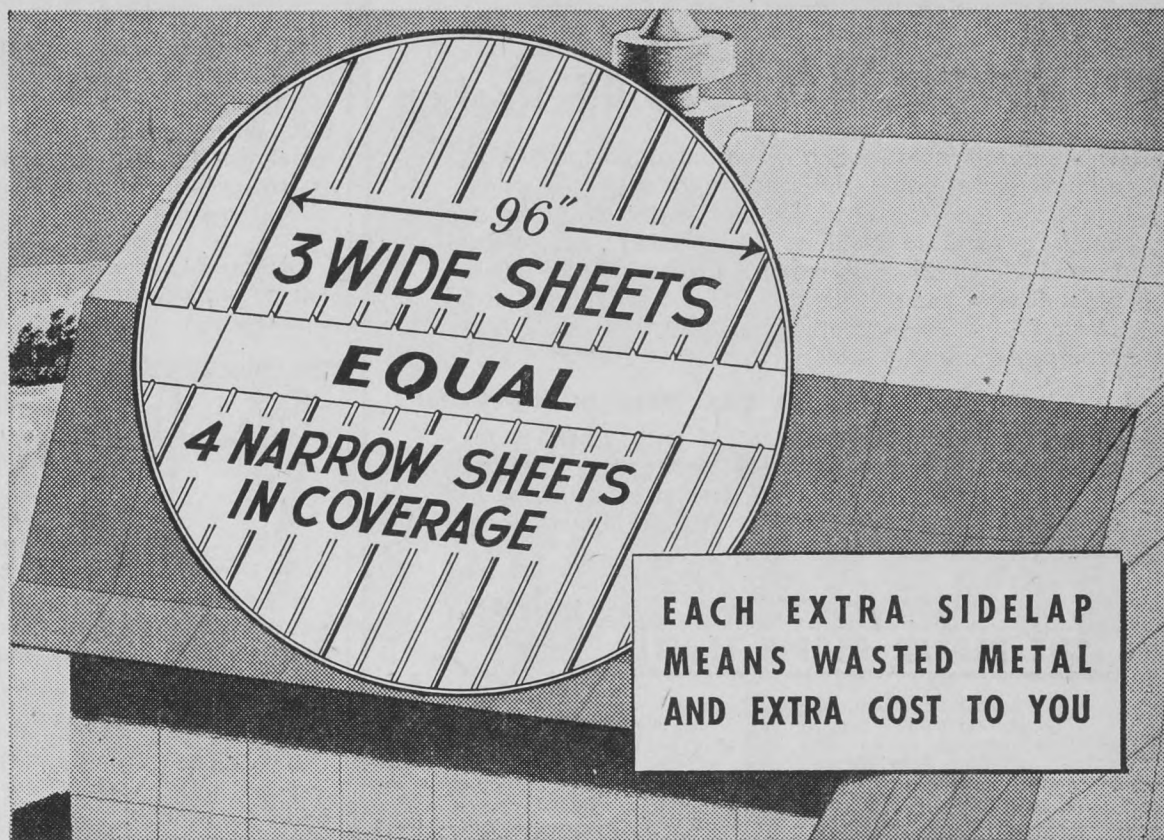
According to the manufacturer, this chain saw is useful for many cutting and logging jobs around the farm. The 3½ h.p., single cylinder, 2-cycle, air-cooled, gasoline engine can be fitted with earth and wood augers, grinder, disk sander, wood drill, sump pump, high pressure fire pump, and other attachments. The company makes a range of saw sizes. (Mall Tool Co.) (81) ✓

For further information about any item mentioned in this column, write to What's New Department, The Country Guide, 290 Vaughan St., Winnipeg 2, giving the key number shown at the end of each item, as—(17).

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In the wide 36" sheet (32" coverage when ribbed)



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NO PAINT NEEDED... "Kingstrong" aluminum needs no protective coating—it is naturally attractive and keeps its pleasing appearance.

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REDUCES FIRE HAZARDS... "Kingstrong" aluminum, because it is a metallic covering, is fire resistant and gives better protection.

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atmospheres of all kinds and does not rust. This ensures long life and lower maintenance costs.

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PEDLAR'S RAINBOW Rib Roofing

This extra-durable roofing gives maximum protection against leaks and is lightning-proof when properly grounded. The strong ribbed sheets are available in either galvanized steel or "Kingstrong" stucco-embossed aluminum, with matching trimmings for either type. Sheets come in lengths from 5 to 10 feet and cover 32 inches in width when laid. We can make prompt delivery.

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Cows stabled in modern stalls, with fresh water always within reach, produce more milk. We can equip any barn, old or new, with steel stalls, stanchions, hay and litter carrier, water bowls, pens, mangers, barn door track, etc.

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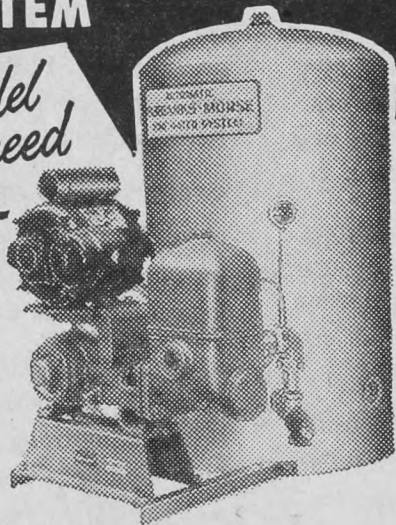
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Whether you need a system to supply the needs of a large farm, or to provide enough for household use in a small cottage, there's a Fairbanks-Morse Water System for the purpose. Every unit, whether for deep well or shallow well use, is built to give a lifetime of economical, trouble-free service. Most systems come fully assembled for easy, low-cost installation. *Your F-M Dealer can advise the size and type you need. See him, or write your nearest F-M Branch.*

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WORKSHOP

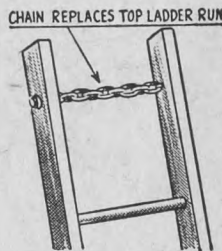
Spring Ideas For Handymen

With warmer weather outdoor chores can be undertaken

Splicing Belts. Difficulty experienced in making a true joint when cutting the ends of a belt that is to be laced can be overcome in the method shown. Lay the belt flat, and then give the top layer a half turn, line up the edges fairly closely, and then cut, with one cut, right through both layers of the belt. When turned back it will be found that the two edges will meet exactly, even if the cut was not made at 90 degrees.—O.T., Man. ✓



Improved Ladder. It is always difficult to work with a ladder leaned against a pole or a tree; it rocks, and there is always the chance of the top rung breaking. I took the top-rung out and replaced it with a short length of chain, which makes it steadier. If you want to be quite secure another length of chain with a grab hook on each end can be put around the tree and hooked to the chain-rung.—G.M., B.C. ✓



Hanging Saw. A hand saw is always awkward to hang up by the handle. A quarter-inch hole in the end of the blade will do no harm, and will make it easy to hang.—G.M., B.C. ✓



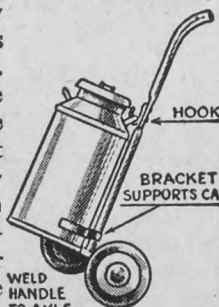
Livestock Driving. A harmless persuader is much better for driving cattle than a heavy stick. I made a good one by cutting a section of old inner tube and fastening it to the handle of a discarded paint brush.—M.E., Alta. ✓



Saving Bolt Threads. When you saw off a bolt it takes a lot of careful touching up to allow the nut to run on easily. If you have to cut a bolt it is better to screw the nut beyond the intended cut; when you back off the nut it will clear the thread.—O.T., Man. ✓



Milk Can Carrier. I have saved myself a lot of heavy lifting with this milk can carrier. The hook can be made adjustable to fit different sizes of can. Any size of wheels can be used, depending on how far you move the cans, and how rough the ground is you go over.—M.E., Alta. ✓



Smooth Saw Cut. When a smooth saw cut is required on both sides of a board a piece of scrap wood should be placed under the piece that you are sawing. This will prevent chips from breaking away from the bottom side of the good board.—O.T., Man. ✓



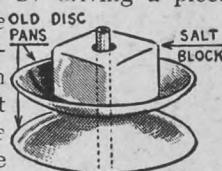
Freeing Seized Threads. Parts screwed together that have seized can often be freed by applying heat to the outer part. As the nut or coupling heats expansion takes place, often breaking the tight connection. A gasoline torch is a handy source of heat.—O.T., Man. ✓



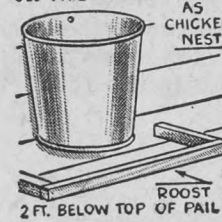
Identifying Keys. To identify my keys in the dark I filed notches in the backs, one notch for the most important key, two for the next, and so on. I can tell by feeling the notches which is the key I want.—W.F.S. ✓



Salt Block Holder. I made a good salt block holder by driving a piece of pipe into the ground, and putting two discs on it, as shown. Most blocks have a hole in them, so can be slipped on, but if the block has no hole, drive the pipe deeper.—J.P.E., Alta. ✓



Chicken Nest. I made a dandy chicken nest by nailing an old pail to the wall of the chicken house. I fill the pail about two-thirds full of hay, and I put a perch about two feet below the top of the pail, so that the hens can get in easily.—K.R.S.—Alta. ✓



One-Man Cross Cut. One of the most awkward things for one man to handle is a two-man cross cut saw. I managed by tying springs to the end of the saw and fastening them to a stake. When I pull the saw toward me the springs stretch and they are so fixed that they will pull back and downward.—L.I.B. ✓



Save Your Tires. There is no place like the yard around the workshop for accumulating nails, sharp pieces of iron and other tire puncture material. I have solved the problem by nailing gallon cans on the buildings and fence posts around the yard; when I see anything that might puncture a tire I pick it up and toss it into the nearest tin.—L.I.B. ✓

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ALWAYS **LOOK TO IMPERIAL** FOR THE BEST

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Recent scientific tests by agricultural authorities prove that 100 mustard plants per square yard reduces yield more than 5 bushels an acre. Kill these profit-stealing weeds with CHIPMAN 2,4-D. For only 35¢ an acre you can make an EXTRA profit of \$7.50 . . . or \$1,200.00 on a quarter section. Convenient, easy to handle in liquid or dust.

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Also controls 2,4-D resistant weeds such as hemp nettle.

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The Mildest, Best-Tasting Cigarette

● This feature is furnished monthly
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MONTHLY

What of the Immediate Prospects for Wheat?

The settlement on April 20 of the wage dispute with 1,200 striking Lakehead grain handlers and the declaring of the official opening of the lakes' shipping season cleared the way once more for the normal spring flow of western grain to eastern ports and overseas destinations. The immediate result of the settlement of the short-lived strike was the lifting of the three-day railway embargo on shipments of grain from country points to Lakehead terminals, accompanied, undoubtedly, by a sense of relief on the part of grain producers and the trade in general.

Overseas clearances of Canadian wheat normally rise following the opening of navigation, reaching a peak toward the closing weeks of the crop year. Continuation of the strike for any extended period of time would have been a serious blow to Canada's export hopes and would have drastically hindered producer deliveries to country elevators. In this latter connection it will be recalled that the Rt. Hon. C. D. Howe, Minister of Trade and Commerce, some weeks ago expressed the anticipation that prairie farmers would have the opportunity of clearing their bins of wheat stocks by the end of the current crop year on July 31, 1955.

While the Minister had reasons for this forecast, a glance at the current statistical situation and comparison with last year's performance will indicate the proportions of the problem. Wheat producers can only deliver grain as space becomes available in country elevators and as the quota system permits. The availability of country elevator space depends in turn upon clearances out of terminal elevators and this—upon the overseas movement and domestic utilization of wheat.

According to the January survey, prairie producers should have on farms, something in the neighborhood of 221 million bushels of wheat as at April 6, 1955. With 17 weeks remaining in the crop year, this would mean average weekly deliveries to country elevators of over 12 million bushels if the farm storage bins are to be cleared. During the same period a year ago producer deliveries of wheat averaged seven and one-half million bushels weekly. Deliveries from August 1, 1954 to April 6, 1955 were approximately 157 million bushels contrasted with 269 million bushels during the same period for the previous year.

The trade minister's optimism is apparently based on an estimate of a strong overseas demand for Canadian wheat during the spring and early summer months, together with a knowledge of advanced sales made to date. His optimism was voiced before the House of Commons in April when he expressed confidence that Canada would hold her percentage share of total world wheat sales during the current crop year. According to *The Wheat Review*, published by the Dominion Bureau of Statistics, Canada exported 138.7 million bushels or 42 per cent of the wheat and flour exports of the four major exporting

nations during the first six months of the 1953-54 crop year. During the corresponding period of the current year she exported almost as much—135.1 million bushels—but only 36 per cent of the total exported by the four major exporters. Each of the other three showed physical increases as follows: United States, 32.2 million bushels; Argentina, 5.6 million bushels, and Australia, 15.1 million bushels. Clearly, Canada has dropped a few million bushels insofar as actual shipments are concerned although not necessarily in total sales. Forward sales are known only to the Canadian Wheat Board and are not released for publication.

Completed shipments of Canadian wheat and wheat flour expressed in terms of wheat approximated last year's shipments of 175 million bushels as at April 6. Since domestic utilization is currently ahead of last year's figure at this date total disappearance is up by some six million bushels.

Meanwhile, trade officials appear reasonably optimistic with respect to overseas deliveries this spring. Current reports are that U.K. deliveries have slowed down as a result of a congested storage situation at U.K. ports. With adequate supplies on hand or called for delivery, there appears to be little to encourage heavy purchases at the present time. Slight reductions in ocean freight rates have not been considered of sufficient proportions to affect purchases substantially.

Worth noting is the decline in the value of the Canadian dollar to approximately one cent above the U.S. dollar. This has been associated with an increase in the price of Canadian wheat from \$1.72½ in early February to \$1.76 per bushel at mid-April. V

Rye Mill for Canadian West

The plant of National Flour Mills Limited of Moose Jaw, Saskatchewan, with a rated wheat flour capacity of 200 barrels per 24-hour working day, has been converted into a rye flour mill, according to a report in the *Northwestern Miller*. An independent company, it is wholly owned by Moose Jaw shareholders.

The company states that during the war the mill was actively engaged in the export flour business but had to close down when markets diminished. Recent surveys by company officials suggest that the Canadian market for rye flour is now a valuable one, augmented as it is by new Canadian families accustomed to rye products in Europe.

The survey showed, state company officials, that a ratio of one per cent of the rye flour used in the four prairie provinces would require an output of 850 barrels per day. It is reported that the company would extend its facilities if business warrants. V

What Solution to the Wheat Problem?

In the United States where the total estimated wheat supply this year will approximate two years' requirements, the so-called "wheat problem" is receiving special attention from a number of sources. Of considerable interest is the comment of John H. McCoy of the Economics Department

COMMENTARY

of Kansas State College, published in part by the Kansas Wheat Improvement Association in a recent newsletter. While no definite conclusions are reached, the commentary points up the basic economic problems involved in any attempt to find a solution to the current situation.

Because production restrictions necessitate controls, states Professor McCoy, proposals for increased utilization are always more popular than restriction of production. While there might be objections in either case, almost everyone is favorable to increased utilization, provided it may be accomplished without income reduction.

Among the proposals for increasing utilization are: (1) increasing wheat consumption for food, (2) expansion of wheat used as livestock feed, (3) exporting, and (4) use for industrial purposes.

What are the prospects of increasing utilization of wheat? It is an economic phenomena that utilization could be increased by reducing the price of wheat but there is good evidence to indicate that a very substantial reduction in price would be necessary to move even a relatively small additional quantity of wheat for human food in the United States. Moving large quantities at a substantially lower price would probably mean reduced incomes for the producers even though more wheat were sold. Dealing with income groups and bread consumption within these groups Professor McCoy states:

The records show that people with very low incomes and low standards of living have a tendency to increase their consumption of wheat for food when incomes rise. The rate of increase in wheat consumption is greater than the rate of increase in incomes—when at low subsistence levels. However, at higher income levels, such as characterizes the United States today, the reverse situation appears to be the case. In other words, beyond a certain point, further increases in income are accompanied by decreases in wheat consumption for food. This may be at least a partial explanation for the fact that per capita consumption of wheat in the United States has declined from 212 pounds in 1910 to about 125 pounds at the present time. This trend appears to be so well established as to leave little doubt of its continuation, notwithstanding the influence of advertising. There appears to be little chance of increasing the utilization of wheat for food in the United States.

Considering the use of wheat for livestock feed he points out that the trends in consumer taste indicate a growing preference for meat and poultry and dairy products. Wheat can be converted easily into these products but from an economic point of view wheat would have to be priced competitively with other feed grains on the basis of feeding value. Under the present price structure,

relatively lower wheat prices would be necessary to move this grain into feed channels. The opinion is voiced that this would probably result in lower incomes from wheat unless a subsidy were provided. A secondary effect of such a policy would be the depressing of the prices of other feed grains which feed grain producers would undoubtedly resent.

Analysis of the possibility of increased industrial use of wheat is basically the same as that for feed use. Wheat can and will be used in industry when its price becomes competitive with other products. Possible uses at the present time would require a substantial decline in wheat prices.

Dealing with the possibility of expanding U.S. wheat exports, this economist points out that the traditionally large importing countries have accomplished their postwar recovery. In these countries the demand for wheat appears to be similar to that of the United States. In other words, only limited quantities could be sold through a reduction in price and, in any case, this alternative is further complicated by the fact that other exporters stand ready to match any price cuts offered by the United States.

Large quantities of additional food could be utilized in the vast underdeveloped areas of the world but sufficient dollar funds are not available for its purchase. Only limited amounts of foreign currency can be accepted in payment for wheat and other exporting nations object to dumping and give-away programs.

In conclusion, Professor McCoy states that the prospects are not very bright for the increased utilization of wheat. The major possibility, he says, appears to be expanded use for livestock feed but this cannot be accomplished without a lowering of wheat prices or a subsidy. Such action would depend upon either farmers' willingness to accept reduced prices or taxpayers' willingness to support a wheat subsidy. ✓

Farmers' Seeding Intentions

On the basis of intentions at March 1, Western farmers will seed approximately 23 million acres to spring wheat this year. This is a decrease of 600,000 acres from the seedings in 1954. If the current plans are realized, wheat acreage in Canada in 1955 will register the third consecutive annual decrease. This year's lower acreage is due almost entirely to an indicated decrease of 840,000 acres in Saskatchewan which considerably more than offsets planned increases in Manitoba, Alberta and British Columbia.

A combined acreage of spring and winter wheat at 23.6 million acres would be the smallest since 1945 and would be about 10 per cent below the five-year (1949-53) average of 26.3 million acres.

The indicated acreage changes in the prairie provinces from 1954 are:

CROP	MANITOBA	SASKATCHEWAN	ALBERTA	PRAIRIE PROVINCES
				acres
Wheat	+ 88,000	- 840,000	+143,000	- 609,000
Oats for grain	+170,000	+ 509,000	+285,000	+ 964,000
Barley	+125,000	+1,287,000	+544,000	+1,956,000
Rye	- 700	- 13,000	- 41,300	- 55,000
Flaxseed	+ 71,000	+ 332,000	+ 56,000	+ 459,000
Summerfallow	-377,000	-1,109,000	-922,000	-2,408,000



"Want some help with your homework, Dad?"

It's a good thing young Ted is only joking.

If his Dad took him up on that offer, Ted would soon find himself floundering in a sea of facts about family income management, succession duties, taxes, wills, trusts, business insurance and other related subjects!

You see, Ted's father is a typical life underwriter—a man who has not only been trained for his job, but keeps up-to-date by constant study. For the uses of life insurance are more extensive today than they used to be. And the men who represent companies in this business now advise you with increased skill.

Doing this calls for more than study. It takes real understanding of people's needs. And since each family's needs are different, the company representative offers valuable guidance in making plans to fit these needs—*individually*.

All in all, the life insurance man you deal with today is a very good man to know. *And his progress is another reflection of the many ways in which the life insurance business has developed with the times to meet your changing needs!*

THE LIFE INSURANCE COMPANIES IN CANADA

Comprising more than 50 Canadian, British and U.S. Companies

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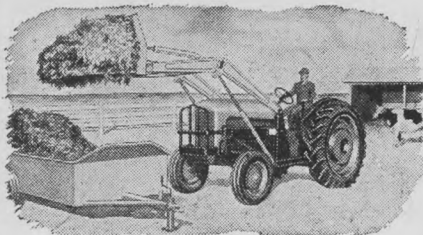


DIGS · DOZES · FILLS · LOADS

Just lift your finger and the hard work is done when you have a Davis Loader. Because it is completely hydraulic you can do countless chores in record time without strain.

HANDLES MANURE, SILAGE, BALED HAY, BUNDLED FEED

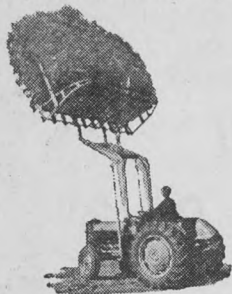
It's a tool of 101 uses. This easy-to-attach manure fork for instance will more than pay for the loader. A slide-on bottom and sides converts it into an all-purpose utility bucket.



STACKS HAY

The Davis push-off sweeprake stacker attachment handles tremendous loads and stacks out at 21'. It's just another example of the utility of the Davis Loader and Davis attachments.

Whatever your loader job is, it will pay you to buy the Davis Loader. It has no equal in quality and performance, and the price is less than you would expect to pay.



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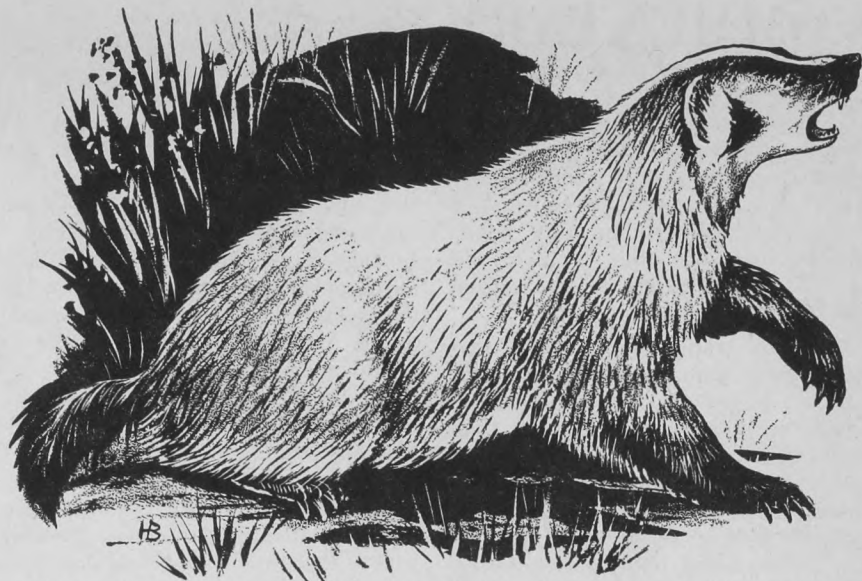
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The squat, tough-skinned body of the badger and his indomitable courage, make him a formidable adversary.

Posthole Digger

Powerful fighter—speediest digger—faithful spouse — honest thief — the badger

by HARRY J. BAERG

"A BADGER is worth more to a farmer than a dog," declared the noted mammalogist, Vernon Bailey, who has spent much time investigating the food habits of this animal. "He is worth feeding a chicken to once in awhile," he added.

This squat little animal has powerful limbs and claws like a grizzly's. With these it can dig almost as fast as a mechanical posthole auger. More than once he has been observed to bury himself in less than a minute. He digs with all four feet and teeth, while the dirt flies and the dust rises from his furious operations.

It is almost impossible to dislodge a badger that is half way down in a hole, so securely can he brace himself with his front feet. Anyone who does succeed in doing so might have cause to regret it, as the snapping jaws and vicious claws come within reach.

Because he lacks speed to enable him to escape from enemies, he will readily turn and attack his pursuers. One turned on me once, when I met him on the rocky shoulder of a hill. Hissing and snarling, he spread his long guard hairs at his side and flattened his body to the ground. When I came nearer he jumped at me with bared teeth. When I dodged he backed away, hissing. As soon as he felt that he was far enough away he turned and ran, but when I followed he was on the defensive again.

THE badger is no mean opponent. He can whip several dogs in a fight. Not only can he deliver the punches, but the tough, loose hide under the silver grey fur is almost puncture proof. One farmer told me from experimental knowledge that it could hardly be perforated with a pitchfork. A dog may think he has a sure hold on a badger, when his teeth are firmly fixed in the skin at the back of the neck. The badger, however, just squirms around inside his skin and applies his own teeth where they will encourage the dog to let go.

During the bloodthirsty Tudor and Restoration days in England, badger baiting was a common sport. Several dogs were turned loose on a captive

badger, and the fight continued until either the badger or all the dogs were killed. This European badger varies little from ours. If anything, the American species is still better able to take care of itself.

In Germany the badger goes by the name of *dachs*. This accounts for the name *dachshund* which has there been given to an unorthodox type of dog with a long snout, unusually long body and short legs. It was developed to go down the badger's burrow and "badger" the life out of him.

Although a valiant fighter, we do the badger an injustice if we do not recognize the other side of his nature. Badgers usually mate for life, and while the male does not always help in bringing up the young, he is a loyal and affectionate partner. He is not a gregarious animal, but widower or bachelor badgers will often chum together and live in the same burrow, for company.

IN Canada, the badger lives almost entirely on rodents. The eggs and young of ground-nesting birds are occasionally disturbed, but not often. One badger will hunt over an area of 20 acres to a section of land, depending on the amount of food there is on it. A mother and her young may hunt together for the first year of their lives. After that they must scatter to find food and mates.

As a rule badgers do not come near enough to farm buildings to molest chickens, but I have heard of at least three instances of a badger being surprised at stowing away hens in the farmyard. In each case the badger had buried the hens, sometimes alive, in holes he dug for the purpose. Although he had taken from 10 to 50 hens at these times, it was not an example of bloodthirstiness and wanton destruction, as is sometimes the case with weasels, mink, coyotes and dogs. The badger often buries food when he has more than he can eat at the time, knowing that the lean days of winter will come when food will be scarce.

Badgers mate in the fall. During the winter, especially in hibernation,

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embryo growth stops, to be resumed again in spring. The young are born in May or June. This unusual pregnancy pattern is common to most of the weasel family, of which the badger is a member, and accounts for the longer period of gestation. An average litter contains three young ones, but there may be as many as seven.

One of the most common complaints against the badger is that he persists in digging postholes in the wrong places. The holes are just large enough for a horse to step into and often are well concealed in grass. Buffalo runners in the old days gave their horses free reign and trusted to luck. Today, the danger is not so great. Most riding after beef cattle is done at a moderate pace. As a matter of statistics, a bad accident caused by a badger hole is extremely rare.

Late in fall, when fat from eating hibernating ground squirrels and grain-fed mice, when the heavy frosts

have turned the prairie earth to stone, and the snows have fallen, covering his hunting ground, the badger retires to sleep through the worst part of the winter. In the southland he does not hibernate at all. Even in central British Columbia I have known him to come out in midwinter and shuffle around in the snow as though in a troubled sleep. Usually he is content to wait till the merry whistle of the ground squirrel wakens him in spring.

Dan McCowan tells a story of some settlers in Saskatchewan who had come late in fall, built a cabin on the prairie and were eating their supper when the dirt floor heaved up and a badger appeared among them. The shanty had been built above the den of a hibernating badger, which, feeling the warmth of the fire in the stove above, thought spring had come, indeed. On seeing that things were not as they seemed, the badger retired to resume his interrupted slumber. V

The Killers Of Dead Valley

They were big and wild, and destructive—but cats nevertheless

by KERRY WOOD

THE Sandhills are a stretch of wilds a couple miles south of our Canadian town, where Sid and I go hunting on holidays. We were interested in stalking rabbits and grouse, because we carried those unique old weapons of the chase, bows and arrows. Soon we knew every ridge and valley, every trail and lookout hill in those forested wilds. And we became concerned about a region we named Dead Valley. Once it had been our best game territory, until one autumn, when we discovered a scarcity of furred and feathered game in that half-mile valley so beautifully treed with spruce, birches, and poplars in golden leaf.

"Look at this track," Sid directed. I hunched down to study it.

"It's just like a domestic cat's track, only larger."

"That's my guess, too," Sid agreed. "Notice the rabbit bones? That cat had a heavy meal, right here."

We didn't bother much about it at that moment, just crossing through Dead Valley and hunting the rest of the Sandhill range. But the hunting wasn't good, that year, and it was our friend Frank who finally tipped us off to the reason. Frank is an old gaffer who runs a trapline along the creek, picking up a few mink, muskrat, fox and coyote pelts every winter.

"I caught me a cat out in your Sandhills, yes'day," Frank confided one day, meeting us on the streets of town. "A lappadoozer of a cat, too. Y' oughter come an' have a look."

We went to Frank's house and had a look. That cat was twice the size of the largest domestic tom we'd ever seen. It was jet black in color, wearing the richest pelt in Frank's whole collection of trapped skins. The fur buyers were offering 25 cents for domestic cat hides right then, but when Frank sent in that beautiful black skin, the city fur-house remitted \$5 and told him they'd be delighted to get more like it.

Frank said: "I been seein' tracks, fellas, an' I got me a notion there's a whole family o' these yere domestic cats gone wild, a-livin' out there in them hills at the place you calls Dead Valley. Most times, a cat fambly that takes to the wild gets spindly small, but this yere bunch print some whopin' big tracks."

We went along with Frank a couple times to study the trails. Snow made it easy to track, and we learned a lot about the hunting done by those cats. They were ranging all over the Sandhills, killing grouse, rabbits, squirrels, and many varieties of winter birds. We even found where one cat had battled it out with a mink, and won. There was no question of the proof left by those tracks: the cat family lived in Dead Valley. That's what made it dead, because they'd killed off all the game.

ON the way home from that second jaunt we stopped at Jim Bowen's farm. Jim told us he'd lost upwards of 20 chickens and turkeys during the fall and winter. Not to coyotes or foxes, but to cats.

"I've known about them for a couple years," Jim said. "That's when the Keatons moved out, leaving a mother tabby behind who went off to the woods. I think she's dead now, 'cause she used to hang around the old Keaton barn until last spring. This family of giant cats are probably the kittens she raised out there in the Hills, and lately they've been raiding my poultry pens too often. It'd be a real favor, if you hunted them down."

Perhaps you are fond of cats; we have no quarrel with that. Felines are the finest built animals in the world, but they're built strictly for killing. Look at their marvellous teeth and claws, watch their stalking stealth, and thrill to the ferocity and fury of a cat charge. Even the best fed of domestic cats will kill numerous songbirds every year, because killing is cat nature. And those cats out in our Sandhills

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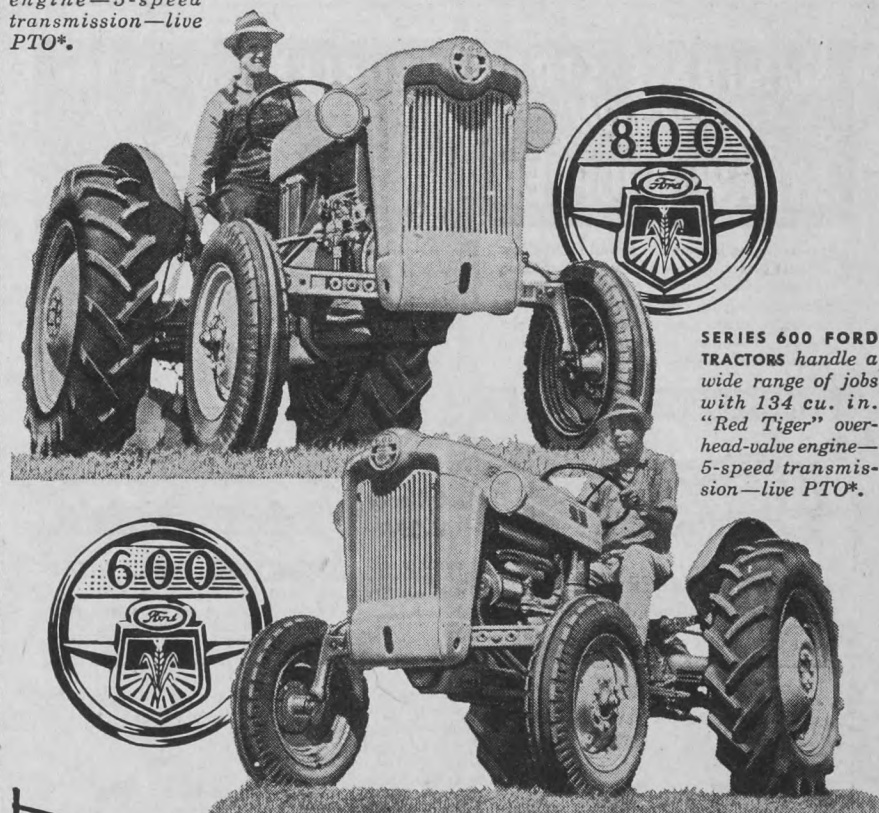
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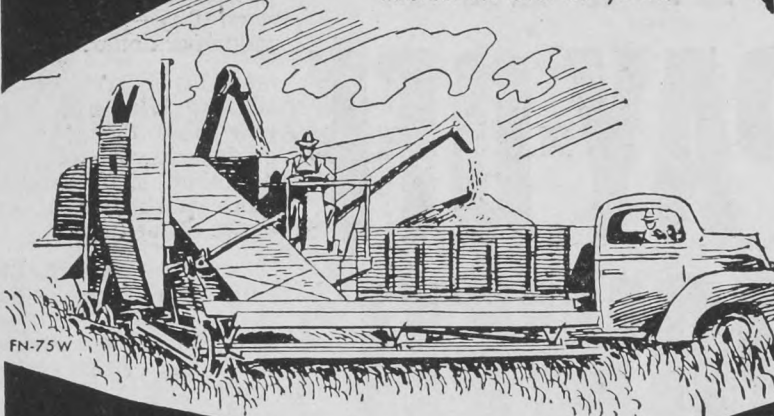
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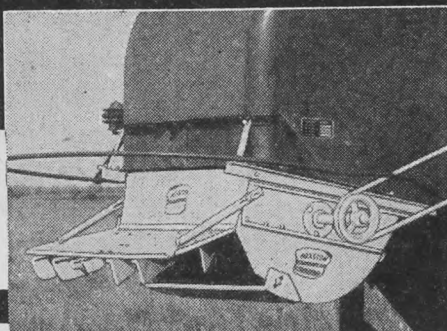
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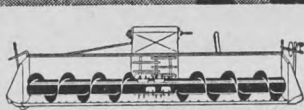
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were outlaws, not qualifying for any pet status or sympathy. The Hills were being stripped of wildlife, farmers were losing poultry stock, and we felt quite justified in taking our hunting bows and going after cats.

We went into Dead Valley where the young spruces grow so densely, trying to do some noiseless stalking. I stood beside an old stump in the midst of a thicket, tensely alert and listening. I could hear the stealthy pad-pad of something moving near me. The footsteps stopped, but I had an idea that some creature was in the midst of the grove about 60 feet away.

Now, a fellow can sometimes quack good enough to swing a flock of mallard ducks right over a blind. So why couldn't I call a cat?

I said: "Miaow!"

The padding sound headed toward me at once. I nocked a sharp broadhead arrow on the bow-string. Then the pad-pad stopped and the silence became tense once more.

"Miaowwww," I murmured again, low and cautious.

Once more sounded the pad-pad approach, and I got ready to shoot. But no cat appeared. I waited a long time, not wishing to mew too much in case I said the wrong thing in this unknown cat-talk. Finally I took a cautious step, then heard a pattering of steps. So I softly uttered another miaow.

At once, out of the thickest part of that spruce grove came a rich, deep: "Mawwwwwwwww!"

"He must be a whopper tom-cat!" I thought, setting my fingers on the bow string and raising the weapon in readiness for a fast shot. Again sounded the padding, closer than ever. "Miaow!" I murmured, when the silence had lengthened.

"Mawwwwwooooowwwww!" came the immediate answer.

I took a small step, and another, trying to get into position for a shot. You could almost feel the forest holding its breath, to aid my careful stalk.

"Mawwwwoowwwww!" purred the tom-cat, loud and rich.

I took one more step, starting to draw back the arrow. But that final step brought me in sight of the intended victim—who was my friend Sid, with his bow raised and ready to shoot. We'd been mewling at each other, all that long half-hour of careful stalking!

After that we stayed together to avoid accidents. We got one shot that evening as twilight was closing in. Sid was in the lead when he suddenly stopped and pointed. I saw something black behind a log.

"A cat!" whispered Sid.

"Then shoot!" I urged.

Sid up with his bow and back with the arrow. The broadhead smacked solidly into the log, right in front of the animal. The creature reared up in startled alarm.

"Run!" yelled Sid.

We fled just in time to avoid contact with the skunk's sprayed perfume.

WE went out there several times before we even saw a cat. Remember, those Sandhill wilds measured three miles long by two miles wide. In most places the spruce, poplars, and birches were densely thick, providing a goodly screen for the cats. And you can't just go b'undering around in the woodlands, hoping to

sight a cat. Those keen-sensed animals hear you coming and hurriedly get out of the way.

They were hunters, and we stalked the areas where they'd be hunting. We knew those Sandhills thoroughly, hence we knew where the rabbits and grouse were still reasonably plentiful. We figured that a cat might hunt rabbits the same as its wild cousin, the lynx. A lynx finds a lookout log a couple feet above a well travelled rabbit runway, waiting there until the bunny comes along. Then the lynx leaps down and lands directly on its victim, which causes another rabbit scream to quaver through the woods. Sid and I reasoned that our Sandhill cats might favor the same method of hunting. So we followed the rabbit runways.

Sure enough, we disturbed a couple that way. Each time they heard us coming, and jumped off their lookout logs before we could get a shot.

Talking it over, we decided to split forces again. One of us stayed at any natural clearing or opening downwind from a selected rabbit runway, while the other fellow circled and stalked along the runway. The third time we tried that system, a cat came skulking along the rabbit run to the clearing. He sighted me just as I released an arrow. The animal whirled and ran, my shaft plunging to earth a yard behind him.

"Hey, Sid!" I called. "One dodged down Blind Valley."

"Good! You take the north side, I'll take the south."

We sped along the ridges, not worrying about our noisy advance. The cat was in the thin screen of scrub poplars at the bottom of the bare-sided valley, and our noise routed him. He streaked down the full length of the trees and suddenly found himself out in the open, with a grassy bowl in front that ended the short course of Blind Valley.

I snapped a swift shot at him just as the cat started to turn back toward the cover. The arrow whistled through the air and I saw the cat lay back its ears. It uttered a snarling screech as the missile thudded to earth between it and the poplars. The animal whirled around, starting to race across the grassy cup at the end of the valley.

"Your turn!" I yelled.

Sid is a marvellous shot, but somewhat slow and deliberate. Hence I was surprised to see him raise his weapon and snap off an arrow without pausing to aim. But Sid knew what he was doing: he had a spare arrow in his hand, whipping it onto the string at once.

His first arrow slammed into the ground a dozen feet beyond the bounding cat, which made that huge feline come to a stop. That's when Sid had his bow raised and ready for his second, deliberate shot. It was a perfect shot, too. The giant cat catapulted a full six feet into the air, uttering a piercing scream. It was dead before that scream ended, for the broadhead had transfixed the savage heart of the killer.

Thus we bagged our first "wild" cat. We hunted down the rest of the marauding family, three more in all. Today, Dead Valley is once again the home of ruffed grouse, rabbits and songbirds of all kinds, because the old cat den behind the juniper clump on Pine Hill is still empty. V

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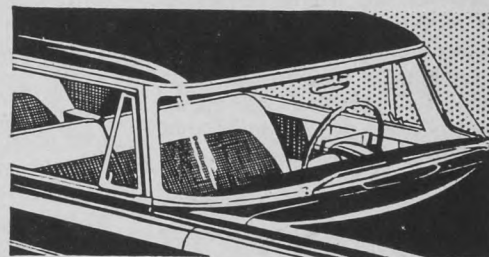
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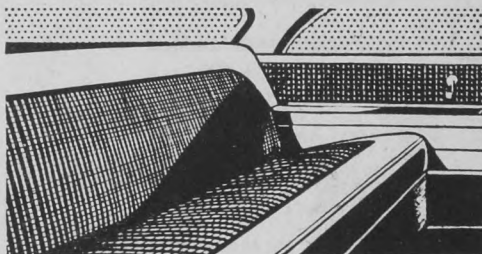
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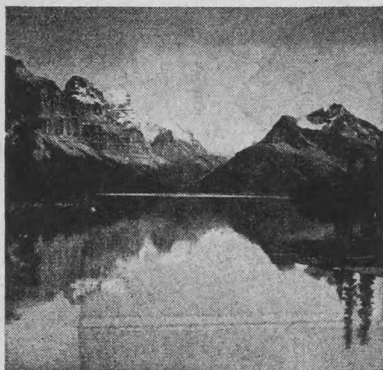


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Billy, The Goat

He lived a long and useful if somewhat exciting life, and died when he could no longer eat linoleum

by JANE COOK

BILLY was hurt. Not only did his ribs ache, but his pride, his dignity, and his sense of fairness had been outraged. The old cow, boss of the herd, had just taken her chance and pinned him between the barn wall and her one weapon, that crooked old horn. Billy squirmed, freed himself, ran a short distance, and then, with all the dignity a goat could muster, marched out in front of his opponent and looked her squarely in the eye. Suddenly rising up on his hind legs, he came down "plunk" right in front of the old cow's face. She lowered her head. The impudence of the little runt!

But quick as a flash he braced himself and struck right below her eyes. The old boss backed away, looked at him curiously, shook her head and walked off. His grit and courage had won!

From that day on until his death Billy was herd boss, and he lived unmolested among the cattle. With his long black nose pointed straight ahead, and his little white tail with the few long hairs on the end pointed straight backwards, he marched at the head, as he daily led the cattle to and from the pasture.

Billy, the children's pet, without whiskers and without smell, came to our place a fugitive from the law. Banished from the city, he had a police record hard to beat. It included theft of candy from behind store counters, boldly entering and eating the neighbor's kitchen linoleum, stealing tobacco, trimming flower beds and shrubbery, and sneaking uptown at a safe distance behind his unsuspecting mistress.

Yes, Billy was a character! But his devotion to those whom he befriended was almost dog-like, and he was a most honorable opponent. Never would Billy strike unawares, or at the back. Always he faced his tormentors, human or otherwise. Then look out! Stop it, or else!

BUT Billy's honor didn't shine a bit when it came to satisfying his inward craving after the most absurd eats. His appetite was voracious. He'd dare almost anything for a good chew of tobacco, harness leather, ignition wiring, or linoleum.

Indeed, it was tobacco that almost cost him the protection of his most staunch and loyal supporter, my old dad. Always ready to defend Billy, it was a huge joke on him when the old goat discovered and consumed his entire stock of smoking tobacco, a half pound tin of Ogdens. And we lived 18 miles from the nearest town! No excuses for Billy that time. My dad wished openly and vehemently that he'd die. But, no chance. Billy didn't die, nor did he even get sick!

And it was tobacco made him the goat that fall in '37. We had a large threshing crew that year, mostly boys around 20, full of pep and fun.

But among them was one, Archie. Archie wasn't young. He was 50, fat, good-natured and a real sport. Working with crews all his life, he had learned both to take and to give.

Now, Archie had just married a neighbor girl, 30 years his junior. And for threshing she had outfitted him, much to the amusement of the boys, with a most complete and immaculate bed roll. So, when Archie announced right after supper that he was going to hit the hay, the boys followed along, to see—well—just to see what a well-outfitted man carried in a bed roll. Archie didn't mind a bit. He was exceedingly proud of his young wife. Billy, the goat, followed along too, to see what was cooking and, of course, maybe swipe a bit of tobacco. Now that was different. Archie hated goats, billy goats in particular.

"Just can't trust the brutes," he panted, as he arrived back at the bunkhouse, all out of wind, his well-stuffed mattress slung over his shoulder. Billy had accompanied him when he went for his gear, and had kept close on his heels all the way back, sampling the few spears of sweet-smelling hay that still clung to the mattress.

"Nope," agreed the boys, winking slyly at each other.

Archie tossed the mattress onto his bunk, and the bedmaking began amid an attentive audience. First came a canvas laid carefully over the boards, to protect the mattress. Over the mattress a thick pad to protect Archie from the sharp hay. Then two lovely, white sheets, top and bottom. On top of that three or four woollen blankets, a patch quilt and a waterproof covering to exclude both water and cold air. And at the head, Archie placed a lovely soft pillow, complete with case, hand-made lace edging, embroidery and all. That was too much for the boys. Giggles turned into laughter, laughter into roars of laughter. But Archie, man of the world, ignored them entirely. Coolly he made ready for bed, pulled on a spotless night shirt and turned in.

THE fun was over. The boys left to tend their teams for the night. But mischief was brewing. Conspiracy was in the air.

Chores done, they sneaked back to the bunkhouse. Loud snores proclaimed that tired, comfortable Archie was well on the way to dreamland. A small collection of tobacco was taken up. Very gently and quietly one of them placed this under, and over the head of Archie's bunk. They waited a while. No stir from within. Still more quietly, two of them picked Billy up, lifted him into the bunkhouse and shut the door.

Now to await the fun. They didn't have long to wait. Billy had smelled tobacco.

"That dratted goat!" Bedlam let loose inside. Billy was going to get

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pitched out, but somehow or other Archie came out the door first, tripped, fell and lay sprawling on the ground. Billy, scared out of his wits, made a flying leap over his assailant, then stopped and turned to seek a friend. From one of his crooked horns hung Archie's lovely pillow—suspended between his teeth was Billy's precious chew of tobacco. But Billy's friends were nowhere in sight. They had vanished into the night.

Yes, Billy surely was a corker! But time taught him many lessons. He found that it didn't pay to nibble the ends of the team lines. He lost a horn trying to escape punishment the last time he did that. He also decided that to keep in the good graces of the cooks, he had to stay on the barnyard side of the fence. And he learned by sad experience, that when a ram backs up, he's just shifting into high gear, and when he strikes it's a knockout. So Billy never, never chummed with the sheep. He couldn't stand their

smell anyway. It made him sneeze in pure disgust.

As the years went by, he spent more and more of his time with the cattle. There, he was out of temptation. In the summer he browsed with them in the pastures during the day, and at night roosted on a huge stone in the middle of the corral. His winters were spent in and around the cow barn.

But as it does to all living things, age crept up on old Billy. He lost his teeth and could no longer chew hard hay. In the winter he had to exist almost entirely on a diet of oat chop. That led to spells of colic, which eventually ended his life. One morning he feebly stood all the time my mother was milking, his nose tucked under her arm. Billy longed for human sympathy. That evening when we went to do the chores, we found his remains. Billy had travelled on to the green pastures that lay beyond! ✓

Ye Shall Know Them By Their Wood Piles

Rich man, poor man, beggarman, thief—you can tell him by his wood pile—or can you?

by LOUISE HARRISON

IT is fast disappearing from the landscape now—that old familiar wood pile that used to grace each farmyard in the community.

By a man's wood pile you could almost tell his standing in the community: a large wood pile and you knew that the man in question was a good provider. A large, conical-shaped pile of unsplit wood left as it fell from the hands of the man throwing away the blocks, and the man was ambitious, but careless, he believed in the woman in his life working a little, too.

The neatly piled stacks of ready-split wood brought smiles of approval to the faces of the women—boy, there was a man. You could tell a stingy man, too, by his wood pile, for never was it large, or prosperous looking enough to encourage the wee woman to become extravagant with her fires. And when you drove into a farmyard boasting neat straight piles of split wood, you knew that you were about to encounter a successful man who took great pride in his home and community.

Wood piles were family projects. Dad's department was to hew down the trees on stormy afternoons: the children shared in the excitement of hitching Maud and Dobbin to the wagon gears and transporting them home.

Splitting and piling the wood was Grandad's specialty; and don't let anyone tell you that there isn't artistry and cleverness displayed here. There is a certain way to lay the blocks to avoid the knots with the axe. No one but Grandad knew how to pile the blocks together, so that the piles would stand straight and strong and proud in all kinds of weather. It was a nightly chore for the boys of the family to fill the wood box, and many is the argument that took place over this task. Father used it as an effective means of punishment. It had its merits, too. Besides getting the work

done, it was the most effective means of curbing further mischief that has ever been devised.

Mother's task was feeding the wood into the kitchen stove. Here, too, was artistry, for she always knew just how much heat she needed, and how much each piece lying in the wood box would produce. If she did not find a piece there that met with her approval, she would send one of the children out to the pile in the yard with specific directions.

The wood pile was a topic for discussion, too. Many an argument waxed strong amongst the men, as they expounded the merits of one variety of fuel, against those of other varieties. These arguments usually took place after the wood-cutting bees, when the neighbors gathered at the homes of the community to saw up the winter's supply of wood. There was always one man in each community prosperous enough to own a power saw; and at this season he was always the most popular man in the district as well.

Science may yet discover some connection between wood splitting and longevity. My father-in-law, who is 87, still clings to the belief that a daily bout at the wood pile is the best exercise a man can have. Wood piles have been his hobby all of his life. I know another man nearing 80, who spent a few hours each day in the farm wood lot—by way of diversion.

It is a pastime that knows no class distinction. Rich and poor alike have indulged in it with equal enthusiasm. Kaiser Wilhelm of Germany is reputed to have spent his last days at this healthful pastime.

But these are progressive times, and changes come with progress. Propane is good, gas is fine, and electricity has its merits, too: but did you ever hear them fill a room with the cheery sound of crackling, or send a myriad of colored sparks cascading into a darkening room at the close of day? ✓



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Not at all. Close at hand for most of us, outlets can be found in the control of pests and predators and in skeet and trap shooting. All across the country these games are growing rapidly in popular-

ity. Men and women, boys and girls, are joining or forming clubs for their enjoyment.

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The process of forming a skeet or trap club is a relatively simple one but a club is not entirely essential to the enjoyment of the sport. An inexpensive hand trap, a few targets and shells and the company of a few friends, will set you up for a pleasant afternoon of shooting and a chance to sharpen your shooting eye.

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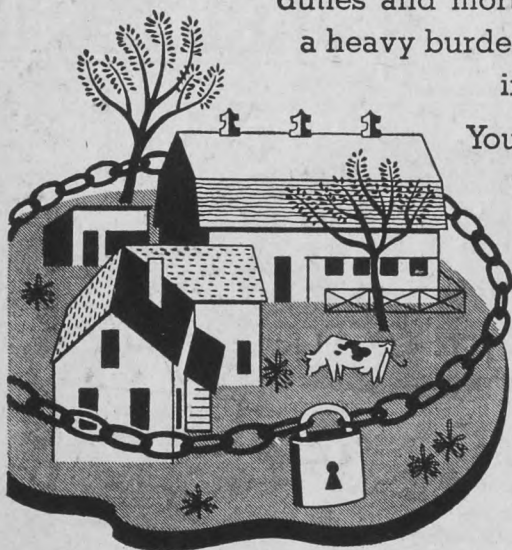
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Wands, Witching, And Water

Continued from page 13

two or three inches, and their responses were consistent throughout the test. But there was no response whatever on anyone's part to water that was not running!

This was established by turning the water off and on in the pipes without the subject's knowledge. Other deliberate attempts were made to trap the observers, especially those who were very sensitive to the tests, but it was found that as long as their concentration remained undisturbed, the percentage of errors was extremely low. When their concentration was upset by unexpected noises, or if their footing was made insecure by covering the platform area with a smooth, slippery surface, they were unable to detect the location of the pipes. Responses were also poor if the subject was tired, or feeling "out of sorts." One such observer was given ephedrine (2 gr.) which banished his feeling of lassitude—and he became receptive again.

"PEOPLE who claim to be able to locate water," said the physics professor, "are generally pretty familiar with the country they operate in, or have enough knowledge to be able to give a good guess where water is liable to be found."

Dr. Lintott and his assistant chose three people who had no special geological knowledge, but were very responsive to the tests, and took them to a sector of Sussex that was unfamiliar to all three. Each operated independently, and was accompanied by an impartial witness. It was significant that each marked exactly the same spot of ground, although unaware of the site chosen by the other two. The test was repeated with each subject wearing a blindfold, but all three identified the same spot again. Further experiments included the mapping of unseen drains in a farm field; and again the accuracy was striking, when compared with existing maps.

That twig movement comes through the holder's body was established by placing a couple of rods in sockets in such a way that they were free to swing, but had no contact with the dowser's hands. As long as the latter just held the sockets and didn't touch the rods, there was no response. But what motor power in the body conveyed movement to the twig? It was noted that response came when the observer's feet were over the water, but this was just as strong when he "walked" over the pipe location on his knees. Similarly, the wearing of rubber boots had no tendency to hinder the response, but the wearing of thick gloves on the hands did. When the same person was wheeled over the contact point while standing on a vehicle, there was active movement of the twig, but when he sat on the vehicle so that his muscles were flaccid, there was no response.

Through all the tests conducted, a definite pattern began to form. It appeared that the motive power conveyed to the twig, or rods, was an increased "tone" occurring in the muscles of the hands and forearms

when the dowser passed over flowing water. This increased muscle tension could actually be felt, if one placed a hand on the diviner's forearm while he was working. The importance of this tension was demonstrated when the latter placed a foot lightly on a pipe containing running water and received no response, then brought his weight to bear and found the twig turning upwards in his hands. Pretty good evidence that the whole business is intimately connected with the reflexes, although the exact nature of the receptor isn't known.

Nor were the upper limbs the only muscles affected. A rubber ball was placed in one operator's mouth and he was told to bite on it lightly to set the necessary tension. When he walked over the pipe containing running water there was a definite increase in the tone of the masseter muscles. An apparatus was then set up which would give a tracing when there was a diminution in volume of the bulb caused by increased mouth tension—the tracing obtained showed exactly the point where water was reached.

Various tests were made to find the physical factor given off by moving water that could react on the body in this manner. Substances such as lead, glass, brass, rubber, and air were imposed between the pipe and platform, but no lessening of the stimulus was observed. Depth too, didn't appear to be an important factor because comparatively small springs could be detected at several hundred feet. Although the nature of this stimulus has not yet been discovered, Dr. Lintott concluded from his experiments that there was enough evidence to state that water divining is a genuine phenomenon, and to suggest that running water may give off waves to which some receptor in the body is sensitive. There appears to be little inclination on the part of other scientific workers to take the ball from there. In the meantime, diviners all over the world go sublimely on locating water.

BUT books and records are poor substitutes for first-hand information. Last fall I headed west to Bradwardine, Manitoba, to visit Dick Dobson, a 70-year-old farmer who has been witching wells for people within a 50-mile radius of his home, since he was 18.

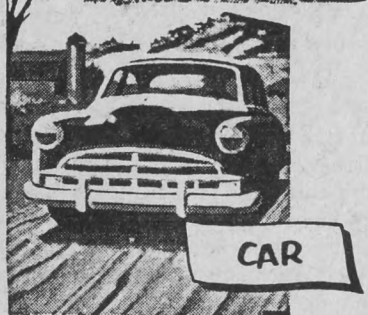
"My brothers and I were shown how to do it when we were boys," Dobson recalls, "but I was the only one it worked for."

Young Dick didn't begin to take his powers seriously until he was in his late 'teens. At that time their farm was having water troubles, and the family had sunk six wells without finding anything. Remembering his curious experience with the forked willow stick years ago, he decided to try his hand again. The vein he struck is still producing good drinking water, after 50 years of age.

"The veins of underground water are not necessarily found under ravines or low-lying areas," he pointed out. "Often when a ravine produced nothing I found the vein high up on one of the slopes."

Over the years, his successful operations have followed the same pattern. Water, like gold, is where you find it. One of Dick's most notable finds was in the village of Bradwar-

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dine itself, where the vein has produced such good drinking water that many farmers thereabouts use it exclusively for their homes.

Dobson prefers to use a sprig of red willow as his instrument, because the smooth bark is easy on the hands. He used a wire indicator once, but the wire cut his hand when it twisted suddenly as he struck a particularly "hot" water vein. When he approaches a contact, he feels a definite soreness in the elbows and forearms, especially his elbows. He also finds that he is unable to tell at what depth the spring lies, contact being just as strong when the water is at 100 feet as at 20 feet. All of which bear out the findings of the Lintott experiments, although Dobson has never heard of them.

"I've found that in this area the veins of underground water move from northwest to southeast," he explained. "Every time a well is dug you can see it seeping in at the northwest corner."

DICK took me outside and indicated that one vein ran right under his house in that direction, giving a good supply for their kitchen pump. Taking a forked willow twig in his hands, with the flat of his wrists up and the V of the stick pointing skyward, he started moving slowly toward the southeast corner of the house. As he drew near, the stick curved downwards until it was pointing directly at the ground. It will be noted that in this case the stick was started from a different position, and the movement was opposite to that in the English tests, but that it still travelled the familiar half-circle. If the twig's purpose is merely to set the correct muscle tone, the direction of movement isn't very important.

Dobson went through the demonstration several times. Make no mistake, he didn't release his grip on the twig and let it drop—that stick came down in spite of him! For my benefit he tried to hold it against the movement, and I could hear the protesting squeak of the smooth bark as it ground around in the palms of his hands. As a matter of fact, he has broken four sticks in just this manner.

Dick Dobson is living proof that water diviners are not highly strung, mystic types. He is a broad-faced, stocky individual who has spent his life working out-of-doors. If it was a matter of being highly strung to have the correct tension for water divining, I could beat him six ways to Sunday. A pin dropped on a table clangs through me like a crowbar tossed on a tin roof. But when I took up the twig and paced over the vein nothing happened.

Dick then placed his hands on my wrists and we advanced over the spot like a couple of tandem dancers. Then I got it! It started with a tingling in my arms and wrists, then over went the stick and pointed at the ground. In spite of Dr. Lintott's assurance that it can all be explained by physical means, I felt an eerie prickling at the base of my scalp. My advice to skeptics is this—just try it sometime.

Shakespeare's Hamlet summed it up nicely when he said:

"There are more things in heaven and earth, Horatio,
Than are dreamt of in your philosophy."

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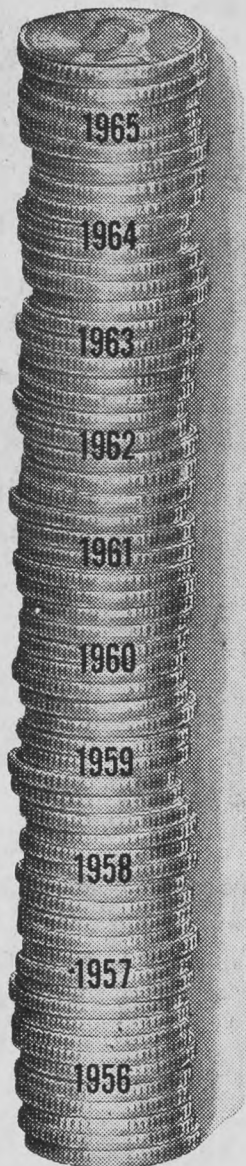
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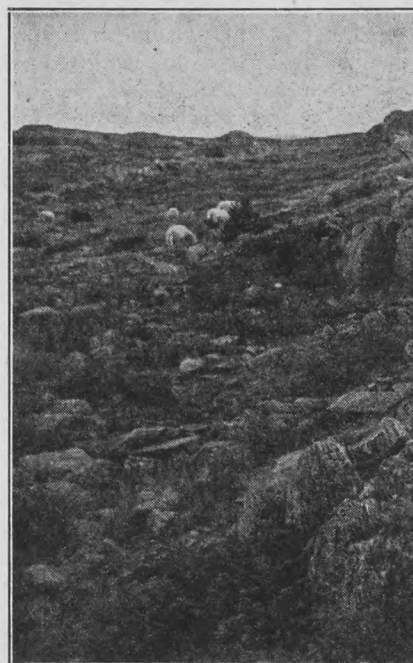
VETERINARY MEDICAL WONDER
Dr. Bell's

Future Farming In Newfoundland

Continued from page 11

foundland have been running from 15 to 40 cents a dozen over mainland prices. On the other hand the price of poultry feed is not much higher than on the mainland, because of the Federal feed freight assistance. Egg production, therefore, has been a highly profitable undertaking in Newfoundland for some years, and there is room for considerable expansion.

Fur farming, too, is affected very little by climate and soil. This is be-



Much of the land in Newfoundland is rocky, and soil is poor and thin.

cause a major part of the feed required for the fur animals is available in the form of fish, fish offal and whale meat, all of which come from the sea. Fur farming, also, requires only enough land for buildings and workroom. In this case, it seems likely that the recent large-scale development based on moving mink ranchers from western Canada to Newfoundland is likely to be quite successful; much more so than the small and inefficient scale of fur farming that has been carried on up to this time.

Blueberries command a ready market and can be produced and exported at very low cost. They appear to thrive on Newfoundland's acid soil and rough land. Clearing the blueberry land of brush and pruning the bushes is done by burning, at a very low cost. There are many large areas suited to blueberry production, especially on the Avalon Peninsula on the east coast. Because of these favorable growing conditions and the fact that blueberry markets in Canada and United States cannot seem to get enough of this delicious pie fruit, there appears to be a good opportunity for increased blueberry farming in Newfoundland.

As for other crops, vegetables and garden fruits have real advantages over most other kinds of cash crops, because of the climate and soil conditions. The cool, moist climate encourages production of cabbage, turnips and potatoes which have been successfully grown for many years. The small amount of land required to give a good income from these crops makes

them suitable for the many small Newfoundland farms. Most farms at present, however, are too small to mechanize, and much of the heavy work of harvesting must be done by hand. For this reason vegetable farming may not be pushed ahead very fast, unless some other way can be found to have more of the heavy work done by machinery. Fruit farming has good prospects in some districts where the special conditions of climate, drainage and soil are found satisfactory.

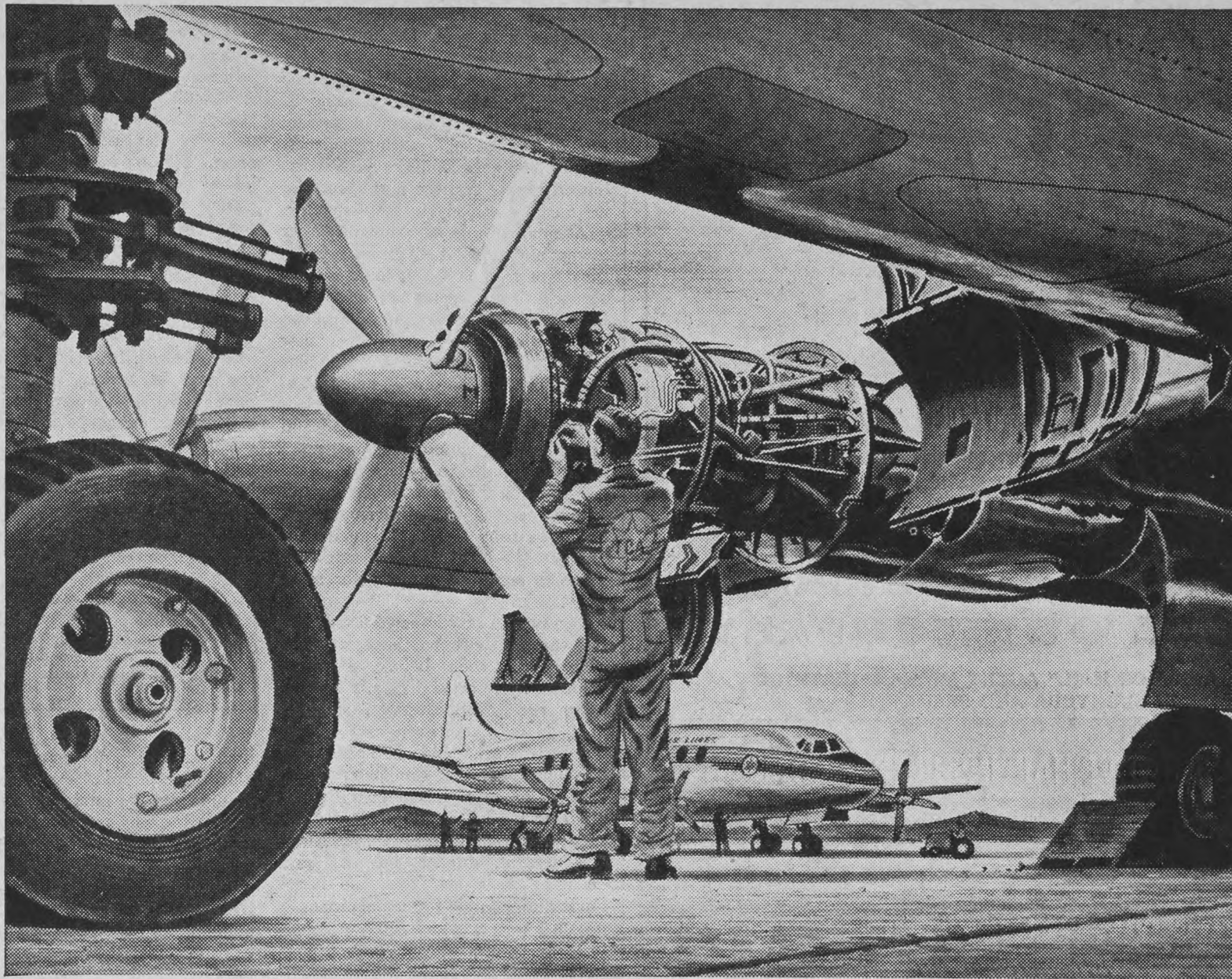
Sheep and beef cattle can be raised, on a small scale at least, by using the large areas of so-called "barrens" for summer grazing. The scarcity of land suitable for producing winter feed is a serious disadvantage, especially since the barn feeding season is often two or three months longer than it is on the mainland. In the few places where larger farms are possible, there has been a tendency to combine vegetables (and fruit in some places) with livestock production, in order to diversify and reduce the risk. This combination seems likely to be more successful than straight livestock, because it permits a rotation of forages and roots. Soil fertility, which in most virgin Newfoundland soils is very low, can be built up to a satisfactory level with the aid of manure.

The high cost of hay, combined with the long season of barn feeding, reduces the possibilities for profitable dairy farming. This need for a lower cost hay supply was behind the Royal Commission's recommendations for a special investigation to see whether some of the thousands of square miles of boglands could not be used to grow some of the winter hay that is needed. If the cost of hay could be lowered by using these bogs, the price of milk might be brought down from its present 32 cents a quart to the consumer. Perhaps more Newfoundland children could then use fresh milk rather than the canned or powdered variety most of them drink now.

Because they have so many disadvantages in soil and climate and so few have had much experience of farming, farmers in the Island province are likely to require much more guidance and help than farmers in other provinces. The help they need most is in extension, land-clearing, soil improvement, farm credit and improved tenure and leasing arrangements. In extension, particularly, farmers could profit by the advice of specialists in poultry, horticulture and livestock. The Royal Commission has recommended that such men be added to the present agricultural staff.

A FINAL question concerns the effect of more farming in Newfoundland on the growing markets that other provinces have developed there. With federation came feed freight assistance and this outlet for Western feed grains increased greatly. In this case, because oats and barley are so difficult to ripen in Newfoundland, feed grain production will not likely be increased, so the supply will, no doubt, continue to come from western Canada. With the prospect that more eggs and poultry will be produced and probably as much dairy and livestock products, it seems likely that Newfoundland will need to bring in a good deal more feed grain than she has in the past. On the other

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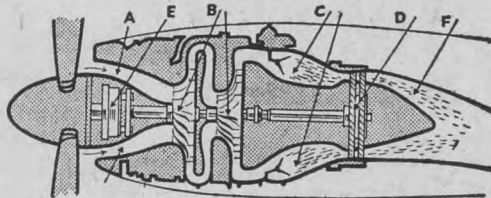
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hand, as far as eggs are concerned, an increase in local egg production, if it is large and rapid, may cut into the egg market that is now supplied by the Maritime Provinces. However, over the long pull, Newfoundland's rapidly growing population is likely to make a bigger market for Maritime eggs. In the case of dairy products, with little prospect for any immediate growth in local milk production, markets for condensed milk, milk powder, butter, cheese and the ingredients for ice cream are likely to grow steadily.

As more people move to the larger towns, and population grows rapidly, the fresh fruit and vegetable market also will likely expand as far as mainland produce is concerned. Improved refrigeration facilities in the new ferry, William Carson, and on the narrow gauge railroad, will help mainland farmers to supply this market, as well as the market for chilled and frozen meats. These fresh meats are likely to continue to replace the salted barrel meats that have been standbys in Newfoundland for so many years. For other canned and packaged food products the Newfoundland market is likely to continue to grow for some years.

The people of our newest province are enjoying a boom such as they have never seen before. Farming seems likely to expand greatly beyond its present size. Because it is so small to begin with, however, and can be successfully expanded in so few lines, it is not likely that the increase will displace much of the mainland produce now marketed there. In fact because of population growth, industrial development, higher incomes and changing tastes in food, the Newfoundland market for mainland farm products as a whole may be expected to grow considerably.

(Note: D. W. Carr is economic advisor to the Newfoundland Royal Commission on Agriculture, the report of which was tabled in the Newfoundland House of Assembly on April 14.—ed.)

Best Sheep Dogs In the World

Continued from page 9

champion, but if that inherited instinct is lacking, no amount of training can make it into more than a very mediocre worker, much less a dog likely to acquit itself well on the trials' field.

Indeed, a study of the stud books issued by the International Sheep Dog Society reveals how the sheep dog breeder is every bit as fastidious about getting the correct blood into his strains as the breeder of cattle or bloodstock horses. Let there be no misunderstanding. A mating of two champion sheep dogs is no more likely to produce a super Border Collie than the mating of two champion cattle or horses. A sheep dog handler finds a dog adaptable to his own methods, and knowing that success in sheep dog work is largely a matter of perfect co-ordination between master and collie, tries to keep to the same blood-lines. When outside blood has to be introduced, he looks for something that will fit well into his scheme of things.

There are, I know, many handlers of International repute who prefer to

buy their dogs rather than train them from puppies, but there are others who can be relied upon to bring home-bred collies on to the trials fields year after year. Such a handler was the late John Thorp, of Derwent and Nuneaton, whose dogs always conformed to pattern and invariably gave excellent accounts of themselves. Harry Huddleston, from the Lune valley of Lancashire, who has been one of Britain's most consistent handlers of postwar years, is another who always relies on collies of his own breeding. Joseph Relph, the well-known expert from the English Lake District, rarely buys a dog from outside.

WHAT age should the youngster be allowed to begin anything in the way of serious work in sheep handling? That is always something of a controversial topic, and, of course, much must depend on the temperament of the dog in question. There is, however, almost general agreement with the principle of not commencing at too early a stage. One of the greatest British handlers of all

I feel like a man who has just kissed his mother-in-law. He knows that he has done his duty, but he doesn't feel just right. — Texas Farmer.

time was the Yorkshireman, the late Mark Hayton, and he considered that at nine months—and not before—the young dog was sufficiently developed mentally to commence serious training. On the other hand, his contemporary and fellow Yorkshireman, the late J. B. Bagshaw, once gave his opinion that the dog's first year should be spent at the shepherd's house under the watchful eye of its master, and away from sheep.

One has, of course, heard stories of youngsters being tied to older dogs during the early stages and of other somewhat rough and ready methods being used, but, while I am not prepared to say that no dogs are trained thus, I have never met a handler who employed them. Even the practice of allowing a youngster to work alongside an experienced dog has been condemned as not developing a sufficient degree of self-reliance and even encouraging the youngster to copy the faults of its older workmate.

Sheep dog training, as practised by the leading handlers of today, is a scientific business based on the understanding and compatibility of master and collie. The successful trainer is in many ways a psychologist. There is nothing stereotyped about his methods. He must understand his collie thoroughly, appreciate weaknesses and strong points, and adjust his curriculum accordingly. Indeed, as Mark Hayton once said: "Success depends upon true friendship between man and dog. A friend is one who knows all about you and loves you just the same. Your dog usually knows quite a lot about you!"

It is on this basis of understanding and friendship that sheep dog champions are trained, and in the final result we become conscious of the working mind of the Border Collie taught to think, rather than the canine machine which is merely the slave of its master's dictates.

Legends of The Flowers

Here are some delightful stories and fables that have grown around the beauty and fragility of flowers, over the centuries

by P. W. LUCE

"CONSIDER the lilies of the field, how they grow . . ." Consider also the lesser flowers of the field, which are not arrayed like Solomon in all his glory.

From the beginning of time there have been many fables and myths connected with flowers. A pagan peasant would stumble across an exotic

bloom, and the Wise Man of the tribe would invent a fitting story to account for the occurrence. It would not be a bird of passage that had brought the seed to the spot, nor had it drifted thither on some river that had its source in a far distant land. It was a strange and a new flower, and its origin was a mystery.

So the Wise Man would decree that it had been brought by the fairies, and another legend was born. The Little People could do anything that was beyond the power of mere mortals, and a wave of their wand could create a new flower of rare beauty.

There is a rare plant called the Guernsey Lily that grows wild only in the Channel Island of that name, and that rarely thrives in gardens anywhere else. According to local folklore, the Guernsey Lily is a fairy flower.

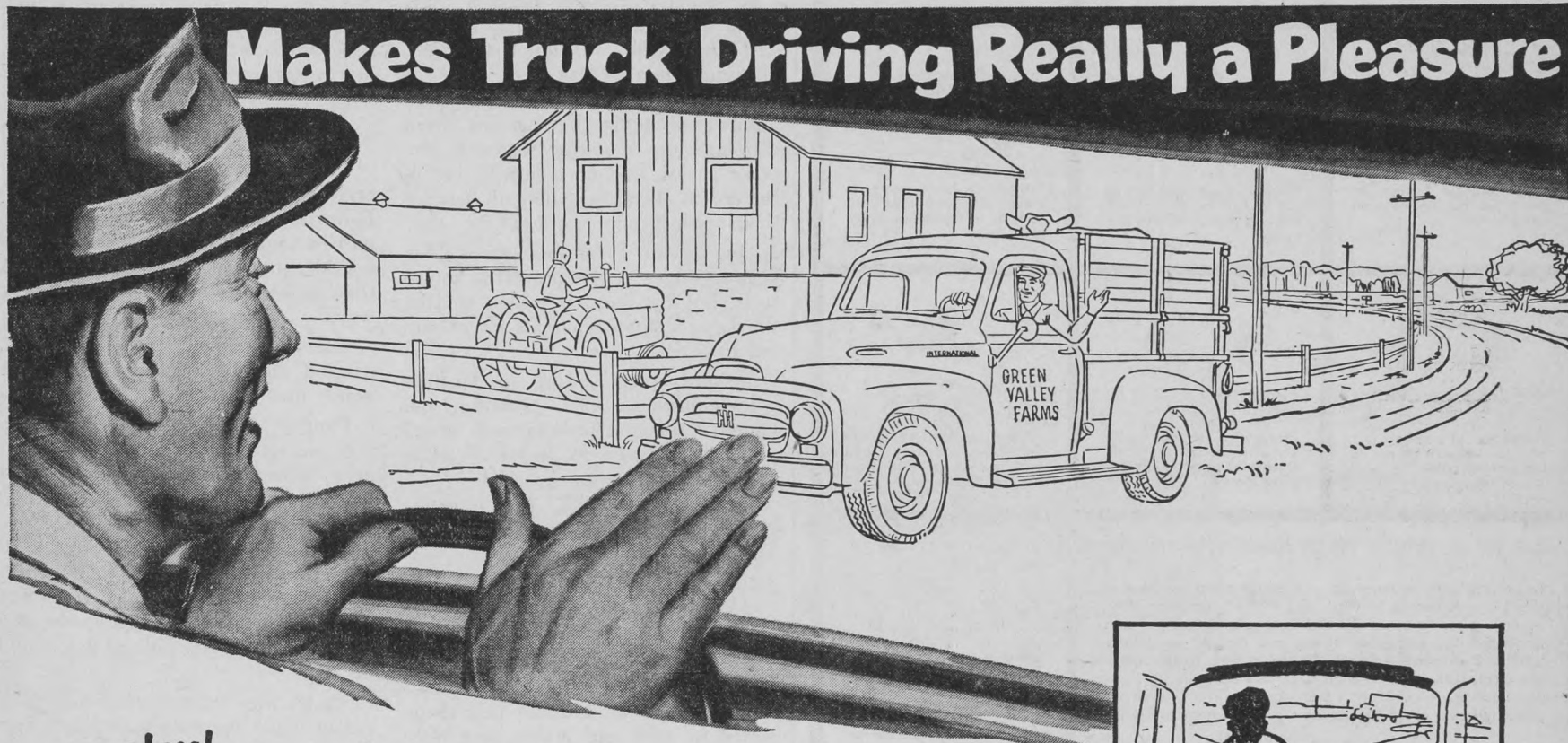
Long, long ago, when fairies still dwelt in a forest (now submerged, but still visible) between Jersey and France, one of the Little People fell in love with a Guernsey girl and took

her away to be his bride. They lived happily until the girl began to pine for her old home, and insisted on going back with her children.

It was an easy translation from Fairyland to Guernsey for the mother, but her children could not exist on mortal soil. One by one they were transformed into the fragrant little flowers now known as Guernsey Lilies, and they grow most freely on those spots where fairies held their revels in the days when the world was young.

Possibly the best-known flower legend is to be found in Greek mythology. It has formed the theme of countless poems, some good, some bad, and some worse. It tells the story of Narcissus, a self-satisfied youth of

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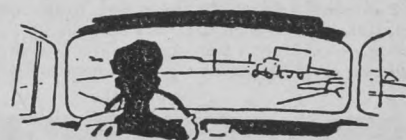
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great beauty, who fell in love with his own image. He had the poor taste to rebuff the approaches of Echo, and the wood nymph pined away, until only her voice remained to sound her lament.

Narcissus, worn out by constant admiration of himself in a fountain, was finally metamorphosed into the flower that bears his name, and that, like him, stands with a drooping head. His family has grown with the passing years, and the best known member now is the daffodil.

THE saints in heaven are featured in some of the pleasing flower legends. One of the more whimsical of these concerns St. Peter, the Keeper of the Keys.

It seems that, once upon a time, there was a back door into heaven. The good saint was much troubled, because, when he was busy about his duties at the front entrance, a large number of unworthy persons were slipping into Paradise through the other portal, and once inside, and in the crowd, it was very difficult to serve them with ejection notices.

One day St. Peter shook his golden keys in anger at the unworthy multitude, but his hand trembled so that the keys slipped from his grasp and fell to earth.

Instantly there sprang up the little golden flowers called cowslips, but which old country people still speak of as "The Keys to Heaven," a far more picturesque name.

Another cowslip legend has its origin in Germany. There it is said that Bertha, the earth spirit of pagan days, plants the flowers in such a way that children picking them are led to a mountain cave which holds many treasure chests.

The children can open the chests with a key-flower, and may help themselves to gold and jewels, but must leave everything as it was when they entered. Otherwise their treasure will turn to dust and dead leaves.

The cowslip, which is a member of the primrose family, is a cluster of flowers on a straight stem. It is described with botanical accuracy and poetical beauty in Shakespeare's "A Midsummer-Night's Dream" when one of the fairies who serves Queen Titania says:

"The cowslips tall her pensioners be:
In their gold coat spots you see;
Those be rubies, fairy favors,
In those freckles live their savours:

I must go seek some dewdrops here,
And hang a pearl in every cowslip's ear."

AS Queen of the Flowers, the rose has legends in many lands. One that came out of Greece has it that a careless Cupid spilled a cup of nectar on a rose, and the fragrance remains to this day. For this contribution to our pleasure we may well thank the little nudist, but his other accretion to the rose is less to his credit.

One fine morning he pushed his inquisitive nose too far into a rose to smell the perfume for which he was responsible.

A bee stung him and, boy-like, he cried.

Venus, his mother, scolded him. Then she killed some bees and fixed their stings to the rosebush, as a warning to children to keep away.

The warning has worked reasonably well for a few thousand years.

On the briar-rose the thorns are reversed. Legend has it that after the Fall, the Evil One tried to crawl back into heaven by using the rosebush as a ladder, but the Almighty saw him in time and caused thorns to grow in his way.

Defeated, Satan slid back to earth, causing all the thorns to turn their points downward in his descent.

Poppies, now the symbol of sacrifice, are also the symbol of forgetfulness. When Ceres, the goddess of harvest, lost her daughter, she was distraught and would neither eat nor drink. She wandered in the fields until the other gods caused a ring of poppies to grow around her. She tasted the seeds of the red flower, and the blessing of forgetfulness descended on her.

There are legends that tell how Adam chose the names of plants and fruits and flowers, but none to compare with the story of the humble forget-me-not. It tells how God walked in the Garden of Eden in the cool of twilight, and came to a pretty blue flower.

"What name did Adam give you, little one?" He asked.

"Dear God, I forget!" trembled the modest one.

God went His way. When next He passed the spot He smiled and said, kindly:

"Good Night, little one. Forget-Me-Not."

An Answer to Water Erosion

Water erosion forced the Gambles back to grass. Now they are looking for more cattle to use the roughage

A HEAVY spring runoff cut rills or small gullies in the unprotected draws of the rolling grain farm of Glen Gamble and his son Jack, at Pambrun, Saskatchewan, in 1948. With these draws still unprotected, three separate cloudbursts during the summer each sent about two inches of rain tumbling from the skies. With most of the watershed down to grain, leaving the soil with insufficient roots or fibre to slow the water, it swirled down the hills and into the draws

where it caught the already eroding soil and dug out and washed more of it toward the bottom lands until deep raw gullies were cut two or three feet, or more, into the light soil.

That fall, a total of 10 washes cut up the farm, some too deep to be crossed even by tractors. Surveying the damage, Jack Gamble could see that something had to be done in a hurry to hold the remaining soil, and grassed waterways seemed to offer one answer. First, 90 acres of the fastest-



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Once deeply gullied, this Pambrun, Sask. field is now under grass that is marketed through livestock, and no longer erodes.

eroding soil was seeded to an alfalfa and brome mixture, and a herd of cows purchased to use the roughage.

Then more grass was seeded along the water runs of fields still to be cropped, to prevent a repetition of the 1948 losses. Over two miles of grassed waterways wind across the nine quarters of land which Jack and his father farm now; and the grain program has been modified so that grass is a vital part of the rotation of every field. Besides controlling erosion it is a means of putting fibre into the soil.

THE erosion-control program has been further enlarged to include strip-cropping of some fields for wind protection. Alfalfa is now growing so well that the Gambles are considering bringing steers to the farm for winter

feeding to make further use of the hay bank that is piling up on them.

With more than enough feed for their 30-cow herd, the farm presents a real contrast to earlier years. Mr. Gamble Sr., who homesteaded the land in 1909, recalls selling off his herd twice in dry years when they ran out of feed. Now, with enough hay in stacks to take care of a couple of dry years, they can plan their livestock program well in advance.

Asked if their new grass-land farming pays, they admit that they were forced into it by water erosion, but point out that they get a cash return from the livestock, and know that their land is protected, and even improved. In fact, they are well sold on their present farming program.—D.R.B.

About Bread And Baking

Some things you know and some you don't know about our daily bread

by JOHN C. CRAIG

Good bread is still the "staff of life," as Jonathan Swift called it in the seventeenth century, and cereal foods, such as bread, continue rightly to form the backbone of our national diet.

As the Bible says, man does not live by bread alone; but as a distinguished committee on nutrition of the League of Nations once added, neither can he live on butter without bread.

A generation ago, bread making was merely an art, but today it is both an art and a science. The housewife still bakes some cake and pie, but for the last decade or more she has willingly left the making of bread to the expert, the baker.

The word "bread" occurs over 350 times in the Bible. Its meaning in the Hebrew, "lechem," means "food, bread, grain, loaf, meat, or victuals." The Greek "oetos" means "bread or loaf." The first reference to bread occurs in Genesis 3:19, where God declares that Adam shall eat bread in the sweat of his face.

The first record of the method of preparing bread is found in Genesis 18:6. When the three angels visited Abraham, he bade Sarah his wife to

"make ready quickly three measures of fine meal, knead it, and make cakes upon the hearth." The following chapter speaks of Lot baking unleavened bread.

We learn that bread in Bible times was made from wheat, barley, and rye and, in later years, also from corn, oats, rice, soybeans, millet, buckwheat, and cassava root. The grain was commonly crushed by a pestle in a stone mortar, and baked by the wife of the home.

The first commercial bakeries were in Egypt. Pharaoh had his own chief baker. The art of baking bread spread to Greece and then to Rome.

At the Metropolitan Museum of Art, New York City, a basket of bread can be seen which is said to be the oldest in the world. It was discovered in a 3,500-year-old Egyptian tomb and is in a wonderful state of preservation.

Perhaps the strangest bread of all is that made by one East African tribe. It is made from the powdered bark of trees. The soft dough is molded into balls the size of an average grapefruit and then covered with leaves. This is then encased in mud, sealed airtight as possible, and buried in the sand. The combination curing-

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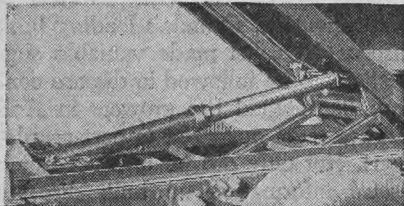
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baking process covers three to six months, and the bread is served only on festive occasions.

We eat on the average 11 ounces of bread per day. Few eat less than four ounces, few more than one pound. Londoners are the greatest bread eaters. The English city eats its way through 25 million two-pound loaves a week.

Research has also revealed that the English are possibly the greatest wasters of bread. During the war, when bread was rationed, the dustbins of Hammersmith, one district of London, in a single day yielded one ton of wasted bread.

Of all the Allied countries, Britain undoubtedly had the most trouble during the war years, as far as the baking industry was concerned. The war bread was not very popular, largely because of bad baking, said the government experts. Only one loaf in eight they examined was really properly baked—no fault of the bakers. New flour, inexperienced staff, and fuel troubles made wartime baking a tough job.

The war loaf improved Britain's health. Doctors reported that blood donors gave higher haemoglobin figures. In 1942, 12 conscientious objectors, volunteers for medical experiment, lived for two months on wholemeal bread and water, retaining good health.

Purity and a fair price for bread have been guarded by law throughout history. In Turkey, defaulting bakers were nailed by the ear to the doorpost of the shop. Two hundred years ago, in London, England, gingerbread makers were accused of systematically using flour from blighted wheat—the ginger masked the bad color and flavor.

Britain may rightly lay claim to popularizing the shape of the loaf as we have it at present. Also to England goes credit for instituting, in 1822, compulsory sale of bread by weight.

Approximately 40 billion loaves of bakers' bread are now consumed annually by the English-speaking nations. If placed end to end, if for no other reason than to excite those who are statistically minded, these loaves would go around the equator some 120 times, forming a golden brown highway about 60 feet in width.

Probably the greatest tribute paid to bread, the oldest of all prepared foods, is found in the words of the Psalmist David. Speaking of Zion, he uttered this benediction: "I will abundantly bless her provision; I will satisfy her poor with bread." V



Watch Out When Feeding on Contract

CATTLE feeding on contract has become common practice in Alberta, as farmers, well supplied with forage and grain which they are unable to sell, seek a method of turning it into cash. Contracting reduces the feeder's risk in case of a price break, but a contract struck with a dealer or packer who is thoroughly wise to the cattle business, can be drawn up to the owner's advantage, leaving the feeder with little more than some costly experience for his work.

One common contract provides that the farmer feeds for the gain alone. Steers going into the feedlot may weigh, say, 750 pounds. Finished at 1,000 pounds, the 250 pounds of gain would be valued at the final market price and that amount returned to the feeder. An agreement as to responsibility for losses and veterinary expenses would be included.

Weakness of this arrangement is that the normal profit in feeding steers comes from up-grading the original weight of the steer. Steers may go into feedlots at 17 cents a pound. By the time they go to slaughter, the original 750 pounds should have increased in value to about 20 cents. That can be considered the profit, and a satisfactory contract should see that it is divided between feeder and owner.

Dr. R. S. Snapp, Professor of Animal Science at the University of Illinois, points out that "the increase in weight made during the fattening period is commonly sold at a loss." Thus, feeding for the gain alone is likely to be unprofitable to the feeder.

This, of course, does not refer to calves. Dr. F. Whiting of the Lethbridge Experimental Station, reports that it costs more to put 100 pounds of gain on a 1,000 pound steer, than on a 500 pound steer. Recent work at the Station showed 37 per cent higher cost in putting on 100 pounds gain between 800 and 900 pounds than between 400 and 500 pounds. Feed costs with the light cattle were \$11.60 per cwt. gain, while at the heavier weight, the feed cost was \$16 per cwt.

With this in mind, a fair contract might provide that the feeder be paid for the actual gain in weight made by the steers, while the increased value of the original weight could be shared. Death losses and veterinary costs could be shared also.

Norman Warsinske, a Montana auctioneer, speaking to the annual meeting of the Western Stock Growers' Association, said that in his state, following the poor market in 1953, many ranchers began forward contracting their calves. The contractors, who are order buyers, or "opportunists," are extremely capable and well-informed regarding the market. Mr. Warsinske said that if the ranchers had stayed with the free market, they would have got back much of their previous losses. In fact, he says that in nearly every case last year, the seller found it profitable not to contract his cattle.

Feeding on contract offers farmers a chance to feed cattle while reducing their own risk, but they can save some costly experience by being sure they have all the details in black and white. V

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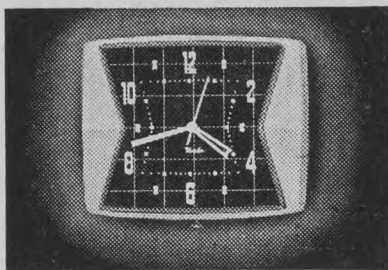
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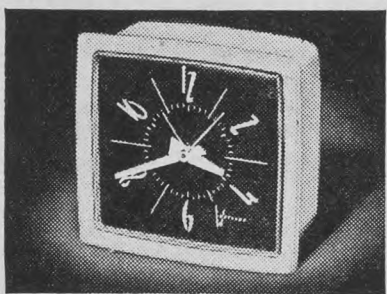
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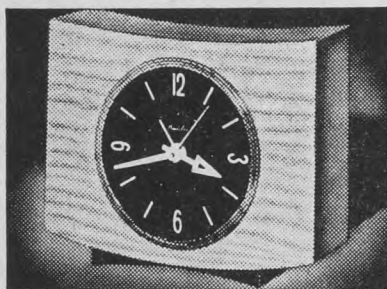


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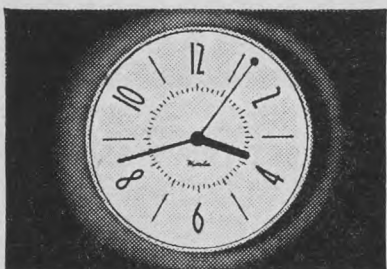
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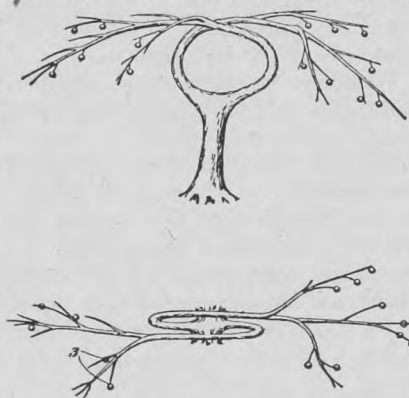
(One in a series of farm inventions from the files of the U.S. Patent Office)

by **MIKE RIVISE**

POPULAR opinion has it that inventors are queer, distracted little men who tinker in disorderly laboratories with all kinds of crazy gadgets. But actually most inventors work in the upstairs attic, or in that narrow basement room next to the furnace—or in the rear of the barn.

William Roy of Montreal wanted to reverse the position of the branches of the trees that grew about him. The limbs on the right side would grow on the left side and vice versa. Seems like a kind of "pretzel tree."

Mr. Roy says: "My invention relates to an improved form of tree, the grain or woody fibre of which has been so bent by artificial means, during the



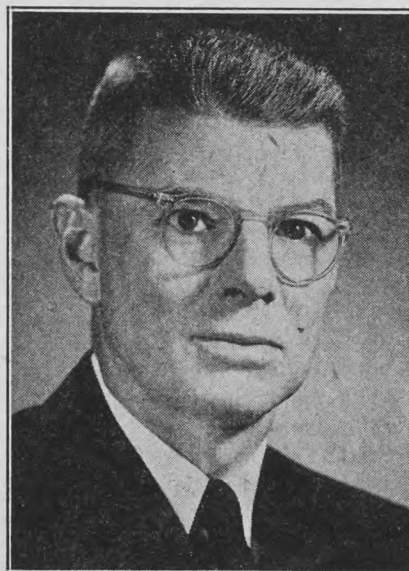
process of growth, that the branch elements would hang out from the opposite side of the tree."

This inventor believed that his trees would be shorter, sturdier, bear more fruit and last longer. Apparently the patent examiners at Washington, D.C., pondered a long time about the possibility of "Pretzel tree" forests all over the world. They took seven long years to make up their minds.

On March 1, 1927, Mr. Roy got his Patent No. 1619272. V

Appointment

DR. J. C. WOODWARD, since 1949 Chief of the Chemistry Division of the Science Service, Canada Department of Agriculture, has been appointed Associate Director of the Experimental Farms Service. Born at Lennoxville, Quebec, Dr. Woodward received his B.S.A. degree from McGill University in 1930, and his Ph.D. from Cornell in 1934. V



J. C. Woodward

Growing Bulbs For Beauty

Continued from page 15

as the judging committee may decide on.

While the bona fide Dutch bulb grower does not sell the bloom from his growing stock, or from any bulbs that are offered for sale, there is of course a flourishing flower industry in Holland that is distinct from the bulb growing enterprise, selling millions of blooms annually. While many of these flowers are sold through normal trade channels, great quantities are sold in the co-operative flower auction market at Aalsmeer, considered to be the world's largest flower market. Many are also handled in the export section for shipment to other countries.

WHILE Britain does not produce as many bulbs as Holland, there are approximately 6,000 acres devoted to bulb and flower growing, scattered all the way from Land's End in England's southwest, to Inverurie in the northeast of Scotland. Every year Britain imports approximately \$8.7 million worth of bulbs from Holland, for both the retail and forcing trades.

"Little Holland" in Lincolnshire is generally considered to be the center of the flower growing industry in Britain. It produces an estimated 50 per cent of the tulips, daffodils and other flowers grown in England, Scotland and Wales, representing a reported national investment of \$9 million. Most of the top sizes, or larger bulbs, are used by the growers themselves for forcing in their own greenhouses, or outdoor frames. While some of the smaller bulbs go into the retail trade for home planting, most are planted back for the grower's own use. To assist in solving many of their production problems, the growers in Lincolnshire are served by bulb specialists of the British Ministry of Agriculture working under the National Advisory Service, and those of the Kirton Experimental Station, where extensive experiments are under way in both bulb growing and forcing.

The earliest flowers in Britain are grown in the Scilly Isles, off the coast of Cornwall, near Land's End. Many early daffodils and tulips are also grown in Cornwall and Devon for London's famed Covent Garden Market. Some "floral farmers" follow a pre-cooling treatment of their bulbs, for forcing in greenhouses and outside frames, for the earliest possible blooms. Some Cornish flower growers are even pre-cooling bulbs before planting outside, claiming that this treatment will produce earlier bloom the following spring when prices are high.

Few people consider Scotland a land of flowers; and it isn't really, except perhaps for some isolated areas here and there, in the more sheltered glens or river valleys. One of these is near the River Don at Inverurie in northern Aberdeenshire, where some 80 acres are planted to daffodils, tulips and iris, producing a reported half-million outside bloom every year, for sale in Scotland's bigger cities. According to some florists I talked with in Aberdeen, they prefer Scottish-grown bulbs, and flowers from them, claiming that the comparatively cool

growing conditions produce bulbs and flowers of greater vitality than can be grown elsewhere in Britain. In Canada we do not have to be told anything about the vigor of northern grown seed, so perhaps the same principle applies to bulbs as well.

BULB growing in Canada received an early impetus about 25 years ago, when the Canada Department of Agriculture arranged for Dr. F. L. Drayton, one of the Dominion's distinguished scientists, to accept the invitation of the Dutch growers and exporters, to go to Holland and smooth out some of the difficulties at that time concerning bulb imports into Canada under the Destructive Insect and Pest Act.

Working closely with the Dutch bulb scientists, Canada's leading bulb disease specialist made valuable suggestions to be followed in disease control that helped the growers in Holland to meet our strict import regulations. Not only did he uncover much useful information on bulb diseases and their control, but when he returned to Canada some three months later, Dr. Drayton brought back with him useful data on bulb culture that has been of value to Canadian officials and growers alike over a period of years. On a recent visit to Ottawa this reporter found that Dr. Drayton had applied his findings so successfully in his own garden that he has been able to maintain the same disease-free, vigorous stock of tulips over a period of many years under ordinary garden conditions.

While Canada cannot boast of a large acreage devoted to the growing of daffodil, tulip, iris and hyacinth bulbs on a commercial scale, B.C. has some 400 acres planted to these crops. The majority of this acreage is located in the lower Fraser Valley and Vancouver Island, where the mild climate approximates that of Holland. For some years now, B.C.-grown King Alfred daffodil and Wedgewood iris bulbs have been finding favor with forcers in the larger cities in Alberta and elsewhere on the prairies. Year by year the bulb growers are learning more and more about tulip culture, and as they continue to build up their assortment of varieties, they will be in a better position to supply the domestic forcing and retail trades.

Recently, while in Holland, I attended a meeting of growers and others interested in the bulb growing industry in the Limmen area. While my knowledge of the Dutch language is about nil, I discovered that I did have something that the Dutch growers could understand. And that was an excellent photograph of a beautiful field of Vancouver Island tulips, showing quite clearly the fine vigor of the stock. J. F. Rickard, a bulb grower in the Saanich Peninsula near Sidney, had given me the photo of his tulip field before I left Canada. I think that he would have been amazed to see how quickly that picture circulated from grower to grower, and the favorable comments the Dutch made about the quality of the Canadian stock.

As growers themselves, they recognized good bulb stock when they saw it; and as businessmen, perhaps, they saw also the thin edge of the wedge of competition when the B.C. bulb growing industry reaches its full stature. V

Dairying on Irrigated Land

Continued from page 12

down immediately to prevent loss. Mr. Tiffin foresees an increasing role for commercial fertilizers too, used mostly for sugar beets so far.

Not an acre of land is wasted. Coulees, that once cut through the farm, leaving awkward corners, or eroding away the precious topsoil, have been filled by his own earth-moving machinery and the water re-directed along fence rows. New fields have been levelled and irrigation water directed onto them. Low spots, beginning to erode, have been built up with soil from other parts of the field, and every acre has had its yields bolstered with the life-giving water.

Over 50 years have been devoted by the Tiffins to building this efficient land-use system, and for most of that time, the dairy operation has been growing and changing too. It provides what Mr. Tiffin calls the best method of selling the crops grown by his productive land.

ALTHOUGH the first dairy cow came to the farm in 1907, the Tiffins might easily have envisioned their dairy enterprise in 1901, when they chose their new farm. They placed the buildings on the bank of a coulee, dammed the small stream with a concrete retaining wall, and piped water right into the barn for horses. Even today, that small lake, ten feet deep and one-quarter mile long, provides water for the herd.

By 1910, when young Jack took over the farm, horses were the measure of a farmer's wealth in the power-hungry West, and though the dairy herd expanded, his horse herd mushroomed to 150 head.

Then wanderlust took hold of his adventurous heart. He sold out the stock and headed for the Pacific coast. A short session in the mines there convinced him that farming held his future, so he headed back to Lethbridge, this time to start an expanding farming operation from which he has never looked back. In 1920, he replaced the original barn with one to accommodate a herd of 20 cows, as well as the still-sizable horse herd. He weathered the ups and downs of uncontrolled milk prices in those early years, until finally the Board of Public Utility Commissioners, appointed by the provincial government, took over control of fluid milk pricing, to eliminate disastrous and cut-throat price fluctuations.

With the fast-growing city of Lethbridge calling for more milk, he built up his herd through the Second World War to 65 cows. The bigger herd required more efficient care, and about 1948 he put in his first loafing parlor. It wasn't his first innovation. As early as 1912 he had installed milking machines, only to throw them out later during a siege of mastitis, vowing he would never again use the "infernal machines." He soon ate his words, when the job of hand-milking a full stable, tying 48 cows, became too great.

As the herd expanded, the need became more urgent for irrigation water, and ditches were led deeper and deeper into the farm. About 1922,

another half-section of dry land, that would soon receive irrigation, was added to the original half.

In 1948, with the loafing pen installed, the milking parlor was still a thing of the future. The herd, which then numbered over 80 cows in the milking line, was milked in relays of 28 each, tied in the vacated stanchions. A modern six-tie milking parlor has been built now. The herd has further increased in size, and one of the West's most modern and complete milk handling and cooling systems has been installed.

IN the milking parlor, three men handle six machines. Original intentions, calling for only two men, were set aside to be certain that the milking was done properly and mastitis not given a foothold in the herd. The attendant has water under pressure—a 500-gallon inside tank, supplied from the small lake outside—to wash down the concrete platform as the cows enter, and another warm spray to rinse off the cow's udder. The udders are massaged to stimulate fast milking, and each quarter tried in a cup for mastitis before the machine goes on. The occasional case is treated either with penicillin bougies, or one of the tube ointments.

Milk goes directly from the milking machine, through a series of cooling pipes, to the 400-gallon stainless steel cooling tank. An arrangement of pipes designed by the farm's junior partner, son Stanley, with large pipes welded like sleeves over small ones, and filled with cold water, begins cooling the milk at once. The tank walls are cooled by a refrigerant.

Cleanliness has always been the danger factor in such a system, but the Tiffins have solved that one, too. Forced by the pulsating pressure of the vacuum system, a cleansing solution is sent through the pipes with a surging back and forth motion, after each milking. Once a week the pipes are taken apart and inspected for milkstone.

The milking parlor and dairy is a new building at the east end of the series of barns. On the west is the other new one, a steel quonset-style loafing pen 96 feet long and 32 feet wide. This accommodates most of the herd, but when it is full the hay-feeding barn next to it will handle the rest. Three hundred tons of chopped hay are stored in the mow here, and fed in the central feed manger.

Between this barn and the milking parlor is the oldest barn, still with 28 stanchions, and used for feeding the cows grain and concentrates. They get a bit of chop in the milking parlor, but then are stanchion-tied and fed home-grown mixed and chopped grain (four pounds) with mineral supplement added, along with 25 to 30 pounds of brewers' grains from the brewery in Lethbridge. The latter may be replaced by beet pulp. This is fed winter and summer alike.

After seven years' experience, Mr. Tiffin says emphatically that loafing pens mean better herd health and higher production for the dairy herd.

After more than half a century, too, in a district where irrigated cash crops have brought wealth to the once dry and almost barren soil, he has demonstrated beyond doubt that grass can compete with other crops. V

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These control policies and programs affect the whole superstructure of world trade in wheat and wheat products, including the International Wheat Agreement, barter and other bilateral pacts, domestic and export prices and subsidies—even export supplies and import requirements. Because of this, no realistic appraisal of potential foreign markets for wheat and flour can be made without considering the effect existing product controls will have on the maintenance and expansion of export outlets.

While wheat support programs are established in just about all the wheat-producing countries, they vary a good

deal from country to country, and are constantly undergoing change. Three common support devices used by nations in the western sphere are: (1) fixed prices; (2) government purchase; and (3) guaranteed minimum prices.

Under the fixed price system, producer prices are set, eligible quality is prescribed, and point of delivery specified. To encourage orderly marketing, allowances for farm storage may be provided, either in the fixed price itself or by an additional payment. France offers a good example of this type of support. Average quality soft wheat from that country's 1954

crop, delivered to collection points, brought the producer \$2.64 per bushel. For each two-week period between August 16, 1954 and May 15, 1955, an additional payment of one cent a bushel was given for grain stored on the farm.

The government purchase plan, on the other hand, seeks to maintain prices for home-grown wheat at a specified level—either by outright purchases of definite quantities, or by standing ready to buy all grain of a stated quality delivered by producers. An example of this type of program is provided by India; when prices on the local market drop below \$1.52 per bushel, the Indian government makes such purchases as are necessary to force them back to, or above the required level.

Many of the larger wheat-producing countries, such as Argentina, Australia, Canada, and the United States, rely on guaranteed minimum prices. Price

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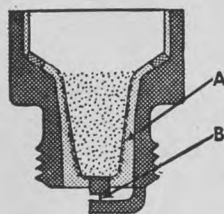
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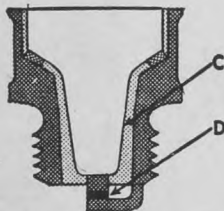


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Acknowledgement

We are glad to acknowledge correction of a publisher's error on the part of our contemporary, Farm and Ranch Review. In its Jubilee issue, Farm and Ranch Review incorrectly stated the origins of United Grain Growers Limited and The Country Guide.

With each passing year the surviving pioneers of the farm movement grow fewer. Soon only the pages of history can recount significant facts and events. As publishers we have a duty to ensure historical accuracy.

support programs in these countries generally include an official minimum price for wheat of a specified grade, with premiums and discounts for variations. In some cases, provisions are made for increasing the price as the season progresses in order to encourage farmers to store their wheat. Before the marketing season begins, both the price, and the time it becomes and remains effective, is usually specified.

In Argentina, the government guarantees a minimum price of \$2.72 a bushel for No. 2 semi-hard wheat delivered at the ports, and also exercises complete control over purchase and sale of the crop in both domestic and export markets. Although the bulk of the Argentinian crop is sold abroad under barter agreements, most of the loss entailed by the high guarantee price paid to growers is made up by government action in fixing exchange rates on goods it is committed to import.



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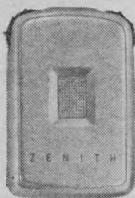
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Can You Beat This?

JOE JONES of Westward Ho, Alberta, believes he has one of the oldest milk cows in the country. "Pokey" is her name because she always has to wear a poke—no two or three-strand wire fence can hold her. But there's nothing pokey about her personality, or her record. She has now reached the ripe old age of 22 years, and still makes her daily contribution to the milk pail.

The Joneses' cow has produced 19 calves (one every 10½ months, and all of them single calves) in 19 years, and dropped her last one in 1952. Always a heavy milker, she has averaged 16 quarts a day, her most productive period lasting about eight years. When the cow was between 15 and 16 years old she had to be milked three times a day or she would be leaking milk pretty steadily by four p.m.

In appearance, Pokey wouldn't win any beauty contest, but she wears her years lightly, and looks more like an animal of 10 or 12, instead of a 22-year-old. She is in no way paunchy, and would easily pass as a "Grade Two" cow. When it comes to kicking and raising a general rumpus, however, she's really first class. In Joe Jones' own words, "we always put a kicker chain on her, and woe betide anyone who tries to milk her without it—milk, pail, and milker would soon find themselves sailing across the barn."

Pokey is a champion when it comes to size—she's extra large, as cows go. From poll to tail root she measures over seven feet, and has a girth of 84 inches. In fact, she's so long that Joe had to fill in the gutter in the barn floor so Pokey could stand comfortably while being milked.

The Country Guide received a picture of Joe's cow, but unfortunately it wasn't sharp enough to print. To date, we've been unable to find any record of a milking cow that could rival Pokey for age. How about it you dairymen, can you beat this? V

Wildlife And Rabies

UNDER the co-ordinating efforts of the Alberta Central Rabies Control Committee, which is composed of members of forestry, police, health, Indian Affairs, and veterinary bodies in that province, the area of rabies infection has been pushed back from Lethbridge to north of Edmonton. However, with the disease infesting the wildlife population, the situation is fraught with danger—farmers in particular, are advised to exercise extreme care.

Of all wildlife, the coyote is most active in spreading the infection, for it operates close to the settled areas and has a chance to mingle with domestic livestock. Seasons and weather have no direct effect on the spread of the disease, except for the fact that wild animals are forced into the settled areas in search of food during the winter.

The first report of domestic animals in Alberta being infected by wildlife came June 8, 1952. A red fox entered

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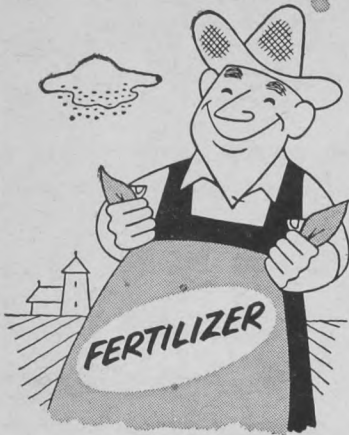
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Fort Fitzgerald and bit four dogs, three of which developed rabies within two weeks. Since then several dogs in the north have been bitten by rabid coyotes and foxes, but these dogs had been vaccinated and didn't develop the disease. On March 1 of this year a coyote entered the farmyard of C. T. Gunn of New Fish Creek, and attacked his livestock. No person was bitten, but a horse, pig, calf, five sheep, and three dogs showed signs of blood, and may be affected.

Rabies is transmitted by the bite of an infected animal. The virus is present in the saliva, and is introduced through the bite wound. It follows the nerve trunks to the spinal cord and brain; a bite on the nose or lips, therefore, is doubly dangerous because the virus has only a short distance to travel to the brain.

Animals of various types react differently when infected by rabies; symptoms even vary among animals of the same kind. One may become very bold, and another may be frightened of everything, and try to be off by itself. Often the rabid animal will bite everything in sight—sticks, stones, tires, and anything or anybody

within reach. At Slave Lake last fall, a house cat developed rabies, scratching and biting several people—two of them children. A rabid dog in another district attacked his owner's cattle, biting six. But a rabies-infected pig at Spirit River acted in a different manner entirely. It appeared to be afraid of people—kept continually moving backwards, and wouldn't touch food or drink. Before dying, the pig became blind, and seemed to be crippled in the hind quarters. A rabid animal may become overly capricious, depressed, or affectionate.

The incubation period for rabies varies from one to ten weeks, although there are authentic reports of dogs coming down with the disease six months after being bitten by a rabid animal. Unless they have been vaccinated, dogs should be tied up in areas where they are likely to contract rabies. There are two good reasons for this: one, if the dog is tied it is not so likely to come in contact with the disease; and two, if it has already been bitten it can be prevented from infecting other animals. Long-range precautions hinge on an effective campaign to keep the coyote population at a minimum.



Stacked straw bales covered with slabs and a straw loft insulate these hog quarters for Leo Jubinville, St. Paul, Alta.

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BUILDINGS must be serviceable and inexpensive, if they are to meet the needs of the fast-developing one-section farm of Leo Jubinville, St. Paul, Alta. The hog quarters on the farm illustrate this principle. Sows and feeder pigs run together outdoors on the farm where they can pick over the forkful of choice green alfalfa thrown into the yard each day. Mr. Jubinville believes that this keeps them healthy and improves the grades on market hogs.

One specially designed building is given over to feeding the hogs. This is again a simple job, done in long undivided troughs placed along either side of the feed alley which runs down the center of the building. Feed is mixed at one end of the building, and from here the grower ration is fed in one trough and the finishing ration in the other. Spaced, upright poles allow only the smaller pigs into the one side for the growing ration. When they

reach the size to require the lower-protein finishing ration, they are forced over to the other trough. The sows, too big to enter either side, are fed in a trough along the outside of the building, in the hog yard. This trough is set on a concrete apron and sheltered by an overhanging eave.

Another building of the owner's design, across the yard from the feed house, provides sleeping quarters for the pigs. A frame was built of treated posts, walled loosely with slabs and floored with treated planks. Straw bales were stacked outside the slabs to form well-insulated walls. Another row of posts was set down outside each wall of straw, and covered with slabs to complete the wall. It was topped with a gable roof, a flat ceiling laid inside to provide a loft for insulation or storage, and the ends boarded in. There, the pigs are warm and comfortable, and can come and go as they like.—D.R.B.

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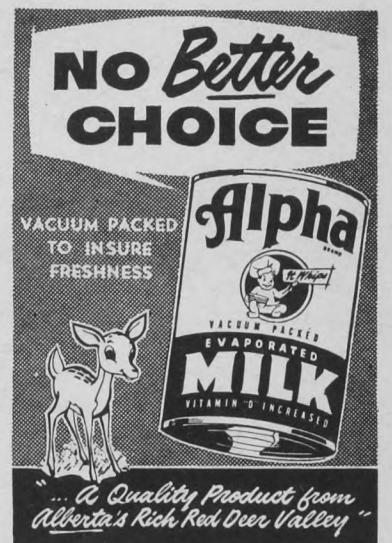


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BALL CLINIC, Dept. 539, Excelsior Springs, Mo.

The Whip Hand

Continued from page 14

Maria for a silent moment and then stepped quickly toward her. He made no sound. He caught her by the shoulders in both his broad hands and whirled her around almost roughly.

"Not to me," he said. "You can do that to any other man, but not to me. I'm Jonas Price. There's no horse born that I can't ride—and no woman crosses my path that I can't kiss." He stooped smoothly and without haste and kissed Maria hard upon the lips—so hard it hurt, with such strength in his hands that she could not break away.

"To any other man," he said again, "but not to me." He held her for an instant, watching the blaze in her eyes, then let her go and swung upon the back of the bay horse and waved his hand and touched his spurs and, together with his three companions—all of them laughing—disappeared round a bend in the camino.

For a long time, Maria did not move from the wall. She did not want to move because she did not trust her anger. The Santa Fe Trail had given a harsh code to those who travelled it, and men had been shot for acts of lesser insolence than this young Texan's. Men had little time for words these days—out here at least—and it would have been easy enough for her to have gone to her father with the tale. Too easy!

She turned and entered the courtyard, striking the coiled whip against her boot as she walked. She crossed the great walled yard, its earth beaten to smoothness by the hoofs of burros and mules, rolled to evenness by the wheels of wagons, glazed by the sun. There was a stable at one end made of adobe blocks as old as time—and a corral before it, circular, of peeled pine saplings.

Within the corral, held by it, imprisoned by it, there stood a steel-dust gelding, motionless, brooding, raw-boned and with muscles like metal straps. He had no beauty, unless strength is beauty. He had no air of servitude, unless patience under confinement can be called that. He did not look at Maria when she called to him. He was looking south over the endless sea of freedom and desert and yellow grass that stretched unfenced and scarcely trodden from the mountains and beyond the steep bajada, down, toward Albuquerque and the river. He did not turn.

"Cossack!" Maria called. "Cossack!"

She called it twice, but he did not turn. Maria leaned against the smooth-worn rails and watched him with thoughtful eyes. After a while, she turned away and went with unhurried steps toward the low adobe house.

"So," she mumbled to herself, "there's no horse born—no horse born that he can't ride!" . . .

WHEN, after weeks on the trail, the long caravans of wagons and braying mules and bearded men rumbled that last blessed mile into the City of the Holy Faith, all the people—the children, the men, the women—and all the dogs and the burros and the chickens were on hand in the square. Everything that lived and could respond to noise and add to it was there. Men shot guns into the air. Women cheered and glanced with expectant eyes at the bulging wagons.

Children ran wild and dirtied themselves in the dusty streets, and no one cared; a caravan was in. It was time to celebrate. It was Fiesta.

Maria stood at the edge of the square and watched the caravan—lurching wagons that bore in triumph upon their hubs and sides grey dust from the Kansas and Missouri plains, and she felt pride in it. But her eyes found time for other things. They sifted the crowd.

Jonas Price was not hard to find. He was taller than most, and his vanity simply in being Jonas Price added somehow to his stature. His long yellow hair was a beacon—to Maria, a

challenge. Men had gathered around him—strong men, too, but they seemed to like his confident manner, his broad gestures, his arrogant laughter.

Maria heard that laughter as she walked with even steps toward Jonas Price.

"Down in Texas," he was saying, "we like them short in the barrel and hard to break. They're better that way. They make you a horse fit for a man."

Fit for a man! Well, men broke horses, Maria thought, but now and then you found a horse that could break a man. Now and then you found a horse that could make a braggart

swallow his words, could cut him down to human size.

She did not glance toward the knot of men. She did not have to. Jonas Price was suddenly before her, confronting her, blocking her path. He held his hat in his hand—his broad-brimmed hat—and he bowed deeply. His yellow hair fell forward, his shoulders cast a shadow at her feet.

"I've been waiting for you," he said. "I thought you'd come. I'm Jonas Price. But maybe you remember?"

Somebody laughed—one of the men, Maria knew, who did remember.

The Texan straightened then and looked into Maria's face. His eyes had

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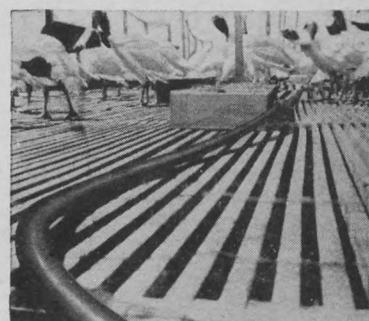
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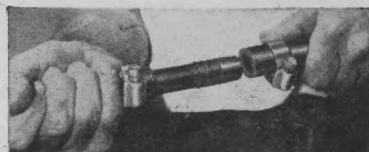
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lost none of their boldness, none of their mocking quality. But in a way, they were like Maria's eyes. Like hers, they were steady, like hers they did not waver.

"I thought you'd come," he said again. "I knew you'd come."

Maria stilled the flush of anger in her. She looked at the gathered men and then at the Texan. She was about to speak but he spoke first.

"The caravan's in," he said. He waved his arm to include the noise and the color and the milling crowd. "There'll be a baile tonight—and, for a Texan, I do the fandango right well. I figured to take you."

He did not ask. He simply stated. He stood there in the wine-clear air, smiling benignly as if he had offered her his life, as if no one—no sane woman in the world—would refuse to dance with him.

There were many in the crowd who knew Maria Bent and, knowing her, they drew closer in expectant silence.

They drew closer and waited—and after a while, Maria's lips curved into an easy smile.

"How do they pay you, Jonas Price," she asked, "for breaking a horse?"

He cocked his head a little as if he had not heard.

"Pay me?" he said at last. "Pay Jonas Price! They pay me well! I'm the best and I'll not ride for nothing. Ten buffalo hides, or twenty dollars—that's what they pay me!"

He said it proudly, and Maria smiled again.

"I'll pay you differently," she said. "If there's no horse born that you can't ride—you'll ride my Cossack. Now. Before these men and in this square. And if you ride him I'll be there, at the baile tonight." She spoke clearly, slowly, and looked at him with steady eyes. "If you can ride him, Jonas Price," she said, "then you're the man you claim to be. And if you can't—well, there's a trail to Texas, too."

Someone whispered in the gathered crowd and many smiled—but none more broadly than Jonas Price. He smiled. He laughed. He threw his head back and laughed until passing people paused to look. And then, with something like wonder in his eyes, he took Maria's hand and clasped it hard.

"A bargain!" he said. "As good a bargain as I've ever made. I'm ready. I'm ready now. Send for your horse—and tonight, we dance!"

THERE are things to know about a horse. There are horses that are unbroken but not really bad. Most will fight a man for a while and then they are tamed, or at least ready for training. Some are stubborn but, in the end, they break. They break and they are made to serve and they do not often remember the way they were before. They have lost something—and gained something, too, perhaps. In a while, it doesn't matter to them; they live and work and do not look backward any more.

But there are other horses—not many, but some. There are horses that seem to sense the indignity of servitude—horses that bear, in a way, what small flame of pride is left to all of them. These horses do not break, and so, because words settle so much for men, they are called outlaws.

Cossack was an outlaw. It is not to say that he pawed and bit at men who

handled him, nor rushed at them with bared teeth. He did none of these things. He did not shy at the hackamore or the saddle. He accepted them. He accepted them because he knew that these were necessary for the test and because he was ready for it.

When Cossack was led into the plaza, it was barren except of people. People had heard (since whispers have wings) that a bargain—a bet, a feud almost—had been sworn between Maria Bent and Jonas Price, and it takes no more than this to gather people. They had gathered and now they waited. They did not look at one another. They looked at the steel-dust gelding.

He came into the plaza led by two men, following them with careful steps. He held his large head high and stared beyond the people as he had always done. He trembled a little, but it was not from fear. There was no fear in his eyes or in his manner, but there was distaste in his distended nostrils.

In the center of the square, the two men stopped, and the gelding stopped and, for the first time, looked around him and saw his challenger. He saw Jonas Price coming toward him carrying a saddle—a tall young man with corn-yellow hair, holding a saddle against his hip, its stirrup straps dangling, its cinches dragging. And the gelding turned, widening his nostrils a little more, and faced his man.

MARIA watched the meeting with curious eyes. She saw at once that Jonas Price had met his match—and she knew that he had seen it. It was the way the gelding stood—not frightened, not nervous, but contained and quiet, as if conserving his strength until the moment came to spend it. He looked at Jonas Price, and the Texan looked at him, then took his eyes away and glanced toward Maria.

He was not smiling now, and Maria did not smile. Suddenly this was not a joke, or an easy thing, or in a sense just a contest between a horse and a man.

It was as if Jonas Price knew now that the heart of the steel-dust gelding was Maria's heart—Maria's spirit, Maria's anger and her challenge. Together they understood this now, though the gathered people did not. But for them, there were no people. For them, there was only a will against a will, and there was no going back.

Jonas Price went to the gelding and threw the saddle on him, not roughly and not too fast, because there are things to know about a horse, and he knew them. The Texan lifted his hand



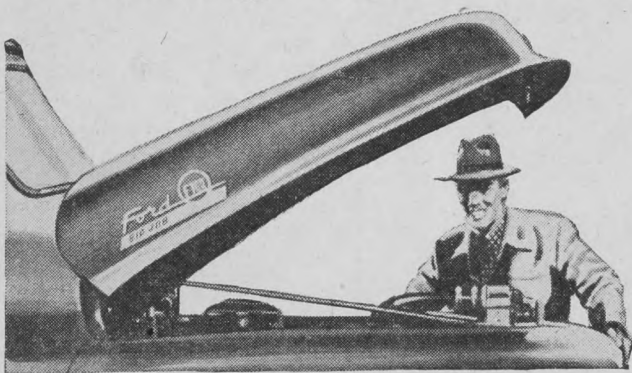
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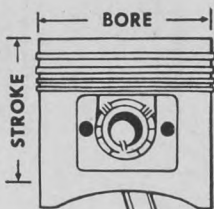
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then—not at Maria, but at the people because he knew they wanted that. Money was being bet, and men were drinking, and women were gay, and he knew that a wave of the hand was what they wanted—what they expected of Jonas Price.

The two men held the gelding's head, but even that was a gesture. Cossack needed no holding. He was willing; he was ready, and when Jonas Price swung smoothly to the saddle, Cossack did not cringe or shy away. There were things to know about a man, and he knew them.

Jonas Price swung smoothly to the saddle and found his off-side stirrup as easily as a man's left hand will find his right, and he sat there a moment, his corn-yellow hair low on his shoulders, his great hat cocked, his broad hands firm, but feeling, on the tlong of the hackamore.

For an instant the gelding did not move. For an instant, there was no murmur from the crowd—no murmur, no sound.

The two men had gone, and Jonas Price and Cossack were there together—and together they began their fight. Together and alone, as if there were none to witness it save only the cobalt sky.

They began their fight and, from the first roll of the spurs to the last, time, it seemed to Maria, stood very still. Time held its breath.

The gelding reared. He did not plunge at once. He felt the taunt of the Texan's spurs and he reared from the earth—high and with contemptuous ease, throwing his weight upon the massive muscles of his haunches, casting his shadow in the square. And when the shadow was long, he sprang.

He had gathered himself and now he sprang—a thousand pounds of flesh and leather hurling upward from the ground, away from it, into the air and through it, twisting, pawing, bending—uncontrolled and free of will—a bolt of fury. He sprang and struck with stiffened legs and sprang again and struck again forging flames of dust from hammer hoofs that beat and made the only sound there was to hear—the only sound there could have been.

Jonas Price had met his match and he knew it, and the crowd knew it now, and Maria knew it. But a match is a match, and it was not proved that

the gelding was more than the man—not yet at least.

The Texan rode. No man there could have said that Jonas Price did not ride. He rode as he walked and as he talked and as he laughed; he rode with arrogance. He rode hard and yet with ease—angrily but with a smile, precariously and yet with confidence—his grey eyes holding still the look of a young man unfamiliar with rebuff, unbelieving of defeat, although defeat was, in the end, inevitable for him.

It could be sensed by those who watched. It could be felt by those who knew, that no man, however young, however proud, could fight forever.

But Cossack could. Like Anteeus who gathered strength from each contact with the earth, Cossack leaped from it, time and again, with freshened power and hurled himself once more upon it, straining the cinches and the gear, jolting his rider upon the hard tree of the saddle, never pausing, never resting, never tiring. He used his legs like flails, striking with them as he plunged, and used his skill like a general, grasping the unbalanced moment, pressing each brief advantage—and still the Texan rode.

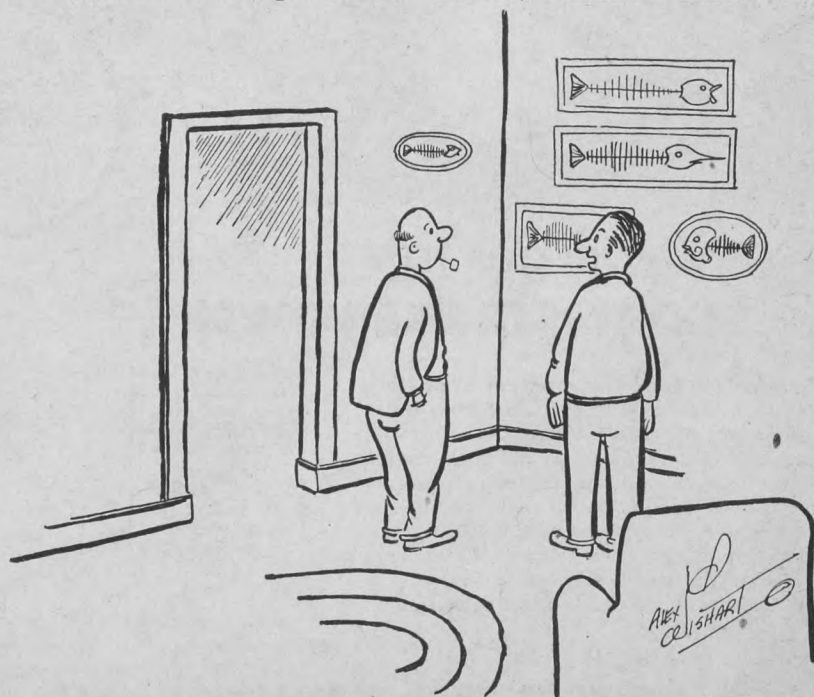
He rode and smiled through the hurricane of dust and waved his arm above it and clung with his thighs and with his legs or broke the impact on the stirrups and used his spurs and kept his hands clear of leather—and rode until he could not ride, and he was lost.

Maria saw it and stepped from the fringe of the mumbling crowd—not far, but a step. She saw that he was lost and she did not speak or cry out or say a word. She stood motionless and near to triumph in the arena fogged with dust—and she watched him fall.

She watched the gelding, sure at last and burning with his victor's fire, plunge his final breaking plunge and rear once more. She saw the yellow banner of the Texan's hair, bright as a lifted flag; she saw his smile—and then he fell, though not alone.

They fell together—horse and man—backward, backward in the maelstrom of their making, in the grey storm of their battle, and crashed to earth, and the Texan did not rise.

Jonas Price lay on the earth—not in the sun, but in the shadow of the



"Oh, I always eat them first!"

steel-dust gelding, who had risen from the fall and stood breathing hard, his head still high and his eyes still seeking things beyond the crowd. And the crowd was silent.

For an instant the crowd was still. It did not sway or make any sound. It turned its eyes from Jonas Price. Its countless staring eyes swung toward Maria, for she stood there and she had won her bet.

"If you can ride him, Jonas Price, then you're the man you claim to be. And if you can't . . . well, there's a trail to Texas, too."

It seemed to Maria that the words were on every man's lips—on every woman's, and on her own.

She watched the Texan rise to his knees and pause a moment—dazed and beaten. She watched him stand, swaying a little, and brush the dirt from his buckskin clothes. She did not move.

She waited while Jonas Price walked slowly across the square that was rimmed with watching people. He came toward her—his battered hat tight in his hand, blood staining his sun-tanned face. He looked neither to one side nor at the ground; he looked at Maria and she at him with steady eyes.

In a moment, he stood before her as tall as he had ever been, as clear-eyed and as proud, but the light of arrogance was gone from his face and there was, instead, the plain admission of defeat. He looked down upon her and offered her his hand and tried to smile, but the smile did not come.

"You won your bet, Maria Bent," he said. "You won it fair and I'll be on my way."

He said it softly and then he paused as if there were more to say—and there was. But it needed no saying, and together they knew that now. Suddenly, and strangely, they understood the thing that had brought them there, the thing that had made him ride—the thing that had made her step from the crowd when he had fallen.

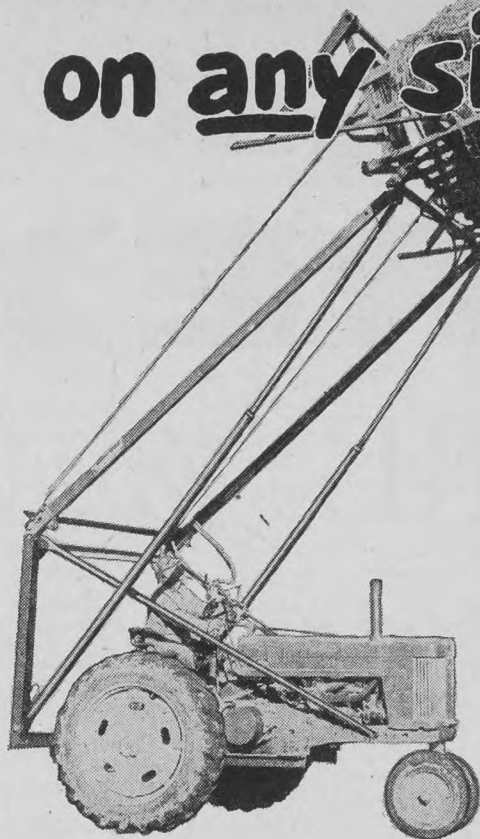
They knew it, and no words could alter it. It was bigger than the cracking of a whip, bigger than the battle of a man and a horse—bigger than the silence of the staring crowd.

MARIA did not look away. It was as if she saw in that crowded instant that the rest of her life was mirrored in the Texan's eyes and she did not look away. She put her hand on the arm of Jonas Price and it rested there with a kind of ease—for there it belonged, at last, and there it fitted.

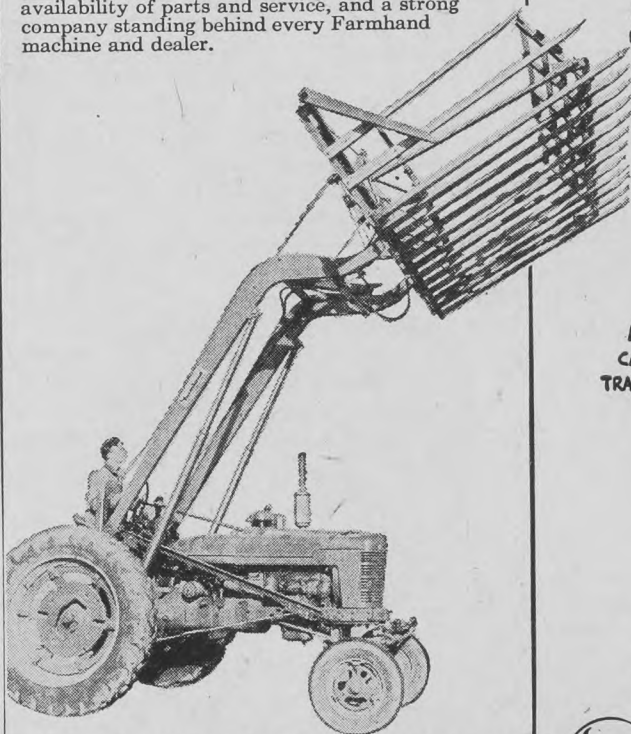
She shook her head and smiled gently. "It was our bet," she said, "and no one else's, and you did not ride that horse alone."

The Texan bent toward her then, without speaking, and kissed her strong and full upon the mouth, while the crowd gaped and there were some who jeered, but neither Jonas Price nor the girl heard any of this. They were tall and straight and side by side, and so they moved, together, through the babble and the whispers and the rumble of the rolling wheels, without pausing and without ever looking back, for the barrier of pride that had been between them was leveled now, and they were equal to each other.

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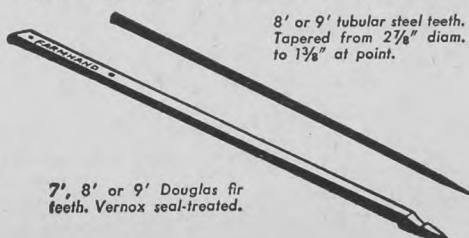


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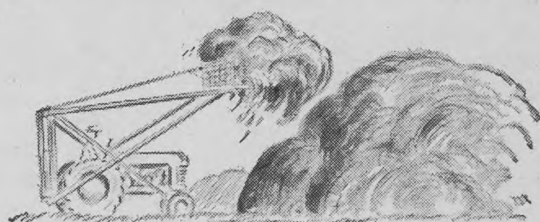
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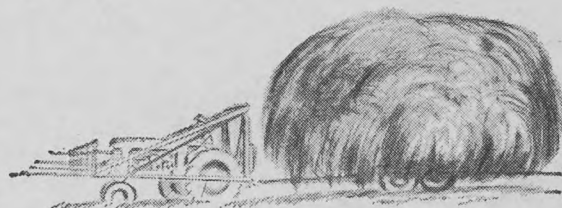
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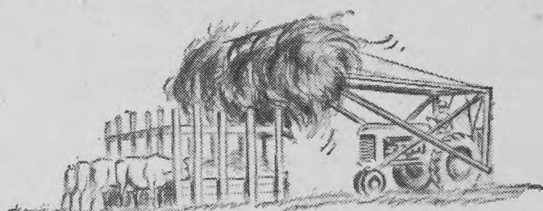
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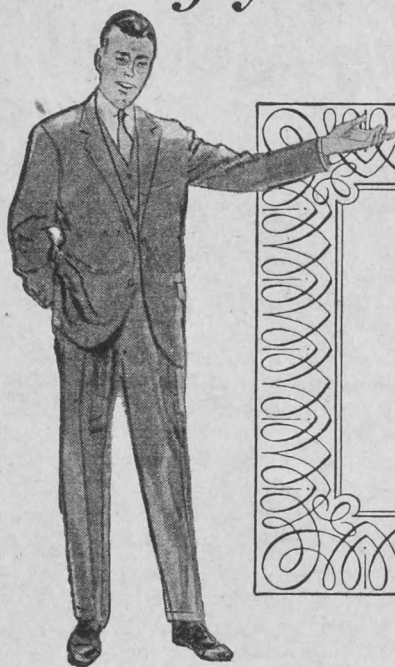
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The Countrywoman

ON May 12, 1820, a baby girl was born in Florence, Italy, to Fanny and William Edward Nightingale, a young English couple who had been travelling in Europe since their marriage, two years earlier. They had named their first daughter Parthenope after the name of her birthplace in Greece. The name they chose for the second was an unusual name for a girl at that time.

Florence Nightingale—a name that was to become known throughout the world! As a comparatively young woman, she became friend and consultant to royalty in many countries, advisor to governments on hospital planning, construction and organization. Travelling in Europe in 1849-50 she met two sisters of St. Vincent de Paul, who gave her introductions to their order in Alexandria. From them she learned the importance of formal discipline in hospital nursing. She went to Germany for four months to study and undergo a regular course of training as a nurse. Later she continued studies and further training in hospitals in Edinburgh, London and Paris.

England was stirred profoundly by the report of the sufferings of the sick and wounded in Crimea in 1854. She wrote Sidney Herbert, secretary at war, and offered her services. Her letter crossed with his inviting her to consider his request: "to go out and supervise the whole thing? You would, of course, have plenary authority over all the nurses, and I think that I could secure for you the fullest assistance and co-operation from the medical staff, and you would also have unlimited power of drawing upon government for whatever you think requisite for the success of your mission."

She set out with a party of 38 nurses, reaching Scutari on November 4. Soon she had 10,000 sick and wounded men under her charge and the superintendence of all hospitals in the area. She had to fight the red tape method of administration and the military authorities. By superhuman effort and the force of her dominating personality she secured a measure of sanitation and decent conditions. In February, 1855, the death rate in hospitals was 42 per cent; in June of that year it was down to two per cent.

At the close of the war Miss Nightingale caught Crimean fever and was dangerously ill but remained until the British forces evacuated Turkey. A man-of-war was ordered to bring her home. Her biographer wrote: "The nation passionately desired to honor her. She had emerged from the war with the only great name on the British side." But Florence feared to face her own fame. Could she live up to it? She slipped quietly home to England in a French ship and went straight to her family.

Florence Nightingale died on August 13, 1910, at the age of 90 years and three months. Two lines under the initials "F.N.," giving the year of her birth and death, mark the family tombstone.

May 12 each year for many years past has been celebrated as Hospital Day—a day when members of boards of management, staff and nurses in many communities across the country hold "open house," hoping thus to arouse interest in and recognition of the vital role played by such services. How many of us realize that the date chosen was the birth date of Florence Nightingale? How well do we know the dramatic story of her life and work?

As a Girl in the Family

BY far the best biography, and there have been many written of Florence Nightingale, is the book under her name title by Cecil Woodham-Smith, published by Constable, London, in 1950.

Here we see the family in its social setting: with wealth on both sides, enough to have two large houses, Lea Hurst in Derbyshire and Embly Park in Hampshire, frequent visits to London and ex-

Life story of Florence Nightingale, the most famous nurse of all time — her character and family background as revealed by a brilliant biographer—the little-known love story centered on John Smithurst, early missionary and clergyman who worked in Canada

by AMY J. ROE

tensive travel abroad. We find a good portrait of William Edward Nightingale, W.E.N. as he was known to relatives and friends, a handsome, clever man, indolent, hating to come to a decision and hating to take action. He loved quietness, leisure, conversation with intelligent people and long hours to read and reflect. His daughters received their education from him, as no governess could meet the family's standards. He was very much in love with Fanny Smith, the wealthy, beautiful girl, six years older than he, whom he married, against her family's wishes.

Fanny loved gaiety, company and delighted in entertaining large numbers of guests and being entertained by others who were prominent in public affairs, the arts or of great family lines. She had ambition to mold W.E.N. into a country gentleman who would play a part in politics. W.E.N. was a candidate for Andover, as a fervent supporter of the Reform Bill of 1832. He was defeated and disillusioned and resolved never to attempt entry into public life again. Fanny then transferred her ambitions to her daughters. Florence was pretty, witty and admired. Her mother and Parthe put her in bondage to the family and there were frequent violent upheavals.

Florence, so the author tells us, wrote long entries in a diary, wrote private notes to herself. "When she was unhappy she poured herself out on paper. These notes were written from girlhood to old age, so much is known of her private feelings. When she was 17 in such a note she wrote: 'On February 7, 1837, God spoke to me and called me to His Service'—not an inward revelation but a voice outside herself speaking to her in human words.

"The voices that spoke to her were not a phenomenon of adolescence. Nearly 40 years later, in a private note of 1874, she wrote that during her life her 'voices' had spoken to her four times. Once on February 7, 1837, the date of her call; once in 1853 before going to her first post at the Hospital for Poor Gentlewomen in Harley Street; once before Crimea in 1854; and once after Sidney Herbert's death in 1861.

"Her path was not made clear. What form that service was to take she did not know. The idea of nursing did not enter her mind. She doctored her dolls, she nursed sick pets, she was especially fond of babies—16 years in all during which the susceptible girl was slowly hammered into the steely powerful woman of genius. The last eight years after her failure in 1854 to escape from the conventional bondage which bound young women of wealth and position to family and social duties, were years that piled suffering on suffering, frustration followed frustration, until she was brought to the verge of madness. Even her father, to whom she was close in sympathy, spoke contemptuously of the 'folly of nursing.' She seemed to be 'forever trying to be different from other people'."

She started to study Blue Books and hospital reports. She worked in secret. She wrote to Paris and Berlin for information on hospitals. "In the cold dark laid the foundations of the vast and detailed knowledge of sanitary conditions which was to make her the first expert in Europe. Then the breakfast-bell rang and she came down to be daughter in the home." Her mother put her to

checking lists of household linen and china, the supervising of canning preserves.

What more did Florence want? It was extremely interesting to her mother that she persisted in being steadily more miserable. "The old story repeated itself: she feared success because she enjoyed it too much; 'vanity, love of display, love of glory are still my besetting sins. Everything I do is poisoned by the fear that I am not doing it in simplicity and Godly sincerity,' she wrote."

She had suitors of good family and position who proposed marriage. Florence kept them dangling or refused them outright. Her biographer says on that point: "Her destiny may have demanded that marriage should be put behind her, but the desire to be loved died hard. She could not rid her heart of longing for 'a love so great that we may lay aside all care for our own happiness . . . because it is of so much consequence to another'."

Florence loved parties, yet flayed herself for liking them so much. When the family set off in 1837 for a European trip which was to last for 18 months she and Parthe delighted in opera performances in Italian cities. They studied painting and music. Florence sang nicely and had many friends. When later she found her "purpose in life" and was dedicated to service in nursing, hospital organization and care of wounded and sick soldiers, some of those same friends were in position in places of power and influence and able to support and aid her in the cause undertaken.

Such were the forces which molded her mind and heart, shaped her destiny!

Florence and John Smithurst

NOWHERE in the life story of Florence Nightingale, as told by Cecil Woodham-Smith, who we understand is a kinswoman of hers, is there any reference to a possible early girlhood romance with John Smithurst. Yet in Canada those two names are linked together in a way that would indicate that each influenced the life of the other; that, because time and space separated them, neither married. There may have been an understanding, if not an actual formal engagement.

John was a cousin of hers, reported to be of a poorer branch of the family and some 12 years older than Florence. He lived in Derbyshire, not far from Lea Hurst, the summer home of the Nightingale family particularly while the two girls were growing up. Fanny Nightingale had the ambition that her daughters should marry well and take a leading place in society, a conventional ambition of parents of the well-to-do families of that day. It is easy then, to understand how the family and other relatives would regard the possibility of Florence's attachment with a young man, a cousin, with poor prospects for providing her with the kind of home and social background to which she so well fitted.

From childhood on Florence was a complex, studious but unhappy girl. Her mother failed completely to understand her or the necessity for providing interests to occupy her capabilities. There was a close bond of sympathy between Florence and her father. He had taught her in many subjects, including philosophy. Yet he too failed to appreciate her intense nature, her deep religious conviction and shrank from supporting her endless search for a meaning and purpose to her life. When difficulties arose in the family, his practice was to leave things entirely with his wife and to avoid as far as possible the consequences.

Her spells of day-dreaming, with frustrations, alternating with spells of actual physical illness and great depression of mind, alarmed Florence herself and her family. Her outbursts of anger and private railing at "family" bondage began long before her interest was aroused in studying nursing and hospital work. We know that (Please turn to page 78)



Demonstrator displays shorts-and-skirt model to farm women.

REORGANIZATION going on enthusiastically in West Germany these days, to a great extent, is affecting and even changing the lives of women in rural areas. The habits and problems of the farm housewife have been under intense study both by the government departments and independent farm organizations, for the past four years.

Now it is evident that the German *land frau* (farm housewife) has two major problems in her everyday life: shortage of labor-saving household equipment, such as washing machines and vacuum cleaners; and the universal problem of women everywhere, the matter of clothes for themselves and their families.

The customary feminine wail "I haven't a thing to wear," was almost literally true in many parts of Germany at the close of World War II. Imports of fabrics had stopped during war years. The best materials available went into uniforms. Those which went

into the clothes, which dribbled through the civilian market, were poor in quality and drab in appearance. The aftermath of years of shortages is still apparent in the working clothes of the farm women.

Most German farm women join their men in outdoor work. The dairy and the market garden are as much the working ground of the farm wife, as is the kitchen and laundry. In the haying and harvest seasons she joins the labor force in the field, shuttling back and forth from the pitchfork to her cookstove.

With a 15-hour working day, there is little of these women's time or energy left to care for or to fuss about the clothes they wear. More often than not, their work dress is a superannuated "best dress" covered with layers of sacking wrapped around it.

Such an outfit is not smart, convenient nor practical. And it's bad for women's morale!

CLOTHES

- - for the Job

Farm women in West Germany assisted and encouraged to find suitable and attractive clothes designed to meet demands of their household and outdoor tasks — interest shown in community pooling of resources to obtain modern labor-saving equipment to ease the burdens of long work days

by JEAN SHAW

So a detailed study of farm women's problems was instituted. About three years ago the Federal Research Institute for Home Economics at Bonn gave out an opinion that the high rate of nervous breakdowns and suicides among farm women could be traced, in part at least, to the drabness of their clothes and the general disrepair of their personal appearance caused by long hours of heavy work.

A PILOT scheme was launched by the Institute to smarten up the lives of farm women in Western Germany. A start was made first with clothes. The Institute developed 175 single articles of clothing. These were made up and distributed to a number of typical farm housewives for testing on a day-by-day wearing basis. These models were worn six days a week for six months.

At the end of this period, the clothes were recalled to the Research Institute at Bad Godesberg and examined for signs of wear, strain or material faults. Finally 14 models were selected and developed into patterns for a range of garments including: skirts, blouses, dresses, aprons, smocks, coats and slacks. The selected models had been designed with a view to their being practical, hygienic and pleasing in appearance. They were planned so that

the wearer would regard them as equally suitable for wear in the house, field or barn. They are easily and simply made of easy-to-wash, hard-wearing materials.

Illustrations shown here feature some of the costumes so tested and recommended. Perhaps the most radical was the shorts-and-skirt model. Shorts are definite newcomers to the fashion scene of German feminine attire, although they have long been an accepted article of male attire. The design shown with a skirt cover-up is finding wide appeal among the younger women. The skirt, cut on the flare, provides generous fullness and can be quickly and easily adjusted. A wider waist band at the back than at the front of the shorts tends to anchor the blouse securely.

With practical realism, the matron's costume is designed for the fuller figure. The skirt and matching vest are made from cotton tweed. The gingham blouse features deep armholes and is made extra long to allow freedom of movement of the arms and still remain secure at the waistband. The division in the skirt is hidden by a deep inverted pleat.

The dairy worker's smock is made of heavy cotton twill and has a double
(Please turn to page 76)



Suitable, attractive costume for market trip or home wear. Centre: Popular hooded raincoat for garden tasks. Right: Wrap-around smock designed for dairy worker.

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4 Danish Bun Treats from One Basic Dough!

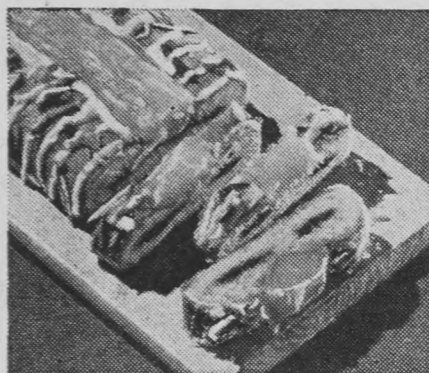
1. Apricot Turnovers



2. Raisin Rounds



3. Jam Strips



4. Cinnamon Braid



For Luscious Variety use New Active Dry Yeast

This rich Danish Bun Dough rewards you with 4 gorgeous treats out of the same oven! Successful risings with Fleischmann's Active Dry Yeast are the secret! So whenever you bake at home, be sure you have Fleischmann's on hand.



Needs No Refrigeration

BASIC DANISH BUN DOUGH

Measure into a small bowl

- 1 cup lukewarm water
- 3 teaspoons granulated sugar

and stir until sugar is dissolved.

Sprinkle with contents of

- 3 envelopes Fleischmann's Active Dry Yeast

Let stand 10 minutes, THEN stir well. Sift together twice, then sift into mixing bowl

- 6 cups once-sifted bread flour
- ½ cup fine granulated sugar
- 1 teaspoon salt

Cut in finely

- 1 pound chilled butter or margarine

Beat together until light and thick

- 2 eggs
- 1 egg yolk

and stir into yeast mixture.

Make a well in the flour mixture and pour in yeast mixture; combine thoroughly. Knead dough in the bowl until smooth. Cover dough closely with waxed paper and chill.

Beat together slightly with a fork and hold to finish fancy doughs,

- 1 egg white
- 1 tablespoon cold water

Turn out dough on lightly-floured board. Divide into 4 equal portions and finish as follows:

1. Apricot Turnovers. Roll out dough to 9 x 12 inches. Cut into 12 squares; moisten edges. Put spoonful of apricot jam on each square; fold into turnovers; seal; snip tops. Place on greased cookie sheet. Cover. Let rise in warm place 15 mins. Brush with egg-white mixture; sprinkle with chopped almonds and sugar. Bake in moderately hot oven, 375°, 20 mins.

2. Raisin Rounds. Cream 2 tbsps. butter; mix in ¼ cup brown sugar, 1 tbsp. flour, 1 tsp. grated lemon rind and ⅔ cup raisins. Roll out dough to ¼-inch thickness; cut into 2½-inch rounds. Moisten edges of half the rounds with water; place spoonful of raisin mixture on each one; cover with remaining rounds; seal; cut an X in top of each round. Place on greased cookie sheet. Cover. Let rise in warm place 15 minutes. Brush with egg-white mixture; sprinkle with sugar. Bake in moderately hot oven, 375°, 18 to 20 mins. Frost while hot, if desired.

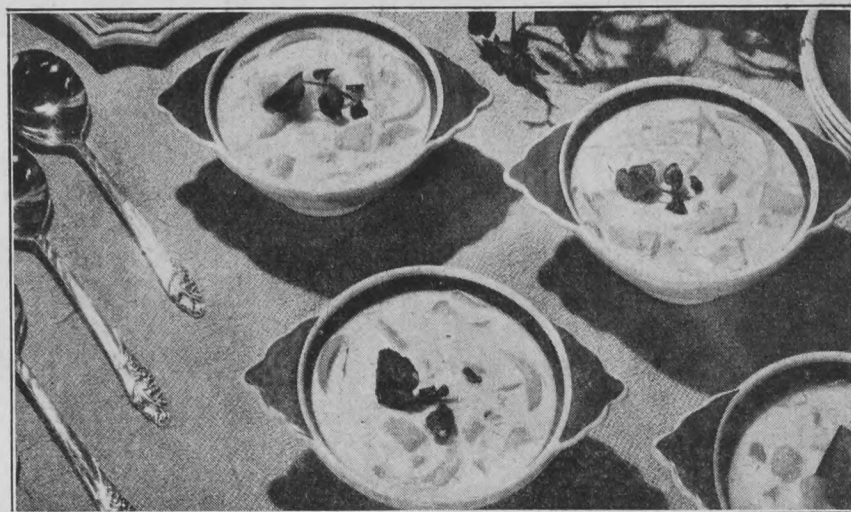
3. Jam Strips. Roll out dough to 5 x 15 inches. Run strip of 2 tbsps. thick jam down each side, 1 inch in from edge. Moisten edges and fold over jam to meet in centre; seal. Place on greased cookie sheet. Cover. Let rise in warm place 15 mins. Brush with egg-white mixture; sprinkle with slivered nuts and sugar. Bake in moderately hot oven, 375°, 25 to 30 mins. While hot, spoon thick lemon filling down centre. Drizzle with frosting.

4. Cinnamon Braid. Combine ⅓ cup sugar and ½ tsp. cinnamon; sprinkle all but 2 teaspoons on baking board; place dough on board; roll out to 9 x 14 inches; fold dough over twice. Repeat rolling and folding twice. Roll out dough to 4 x 16 inches; cut into 3 long strips, joined at one end; braid. Place on greased cookie sheet. Cover. Let rise in warm place 15 mins. Brush with egg-white mixture; sprinkle with 2 tbsps. chopped almonds and 2 tbsps. sugar mixture. Bake in moderately hot oven, 375°, 30 mins. Spread hot braid with frosting.

CONFECTIONER'S FROSTING: Combine 1½ cups sifted icing sugar, 2½ tbsps. milk and ¼ tsp. vanilla.

Soup's On!

On cool days the year round hearty servings of piping hot soup make the meal



Win family approval by serving French potato soup often.

YOU can't go wrong at lunch time when you serve steaming bowls of hearty soup, well-filled sandwiches, fruit for dessert and milk to drink. Soup, whether made with a milk or stock base, is both filling and nutritious.

Milk soup has as a base a thin white sauce. Season it well and add pureed or diced vegetables or meat. A topping of chopped parsley or watercress or a few croutons add to its appearance and flavor. Make the croutons by lightly browning cubes of white bread in a small amount of butter.

Broth for vegetable soup is made by simmering a soup bone or meat slowly. If it is to be the main course make it thick with meat and vegetables. Vary the ingredients to suit the family taste, and for extra flavor add chopped parsley or celery tops, thyme or a bay leaf along with the usual salt and pepper.

French Potato Soup

- 2 c. diced potatoes
- 2 c. diced onions
- 2 tsp. salt
- 2 c. water
- 3 c. milk
- Few grains pepper

Boil potatoes and onions in 2 c. water, to which salt has been added, for 15 to 20 minutes. Add milk and pepper. Heat to serving temperature. Top bowls of soup with sprigs of parsley or croutons.

Cream of Vegetable Soup

- 3 T. butter
- 2 T. flour
- 1 tsp. salt
- ½ tsp. pepper
- 4 c. milk
- 1 c. cooked pureed vegetables
- 2 tsp. grated onion

Puree cooked vegetables such as celery, spinach, asparagus or peas. Measure. Grate onion and add to vegetables. Melt butter in top of double boiler. Blend in flour and seasonings. Remove from heat and gradually stir in milk. Cook over hot water until slightly thickened, stirring constantly. Add vegetables. Cook 10 minutes over boiling water. Serve hot with a swirl of whipped cream, dusted with paprika.

Beef and Vegetable Soup

- 1½ lbs. short beef ribs
- 4 c. water
- 4 bouillon cubes
- 2 tsp. salt
- ¼ tsp. pepper
- 10 small white onions
- 4 large carrots
- 4 stalks celery
- ½ tsp. dried basil
- 1 can lima beans (2¼ c.)
- 3¼ c. canned tomatoes

Cut beef into 2½-inch pieces. Brown without fat in heavy kettle. Add water, bouillon cubes, salt and pepper. Cover;

bring to boil and skim off any scum that comes to the top. Cover, simmer 3 hours or until tender. Chill overnight; remove fat from surface. Bring to simmer. Add onions; cook 15 minutes. Add carrots that have been cut in half lengthwise then crosswise and celery cut in 3-inch pieces. Add basil, if desired. Simmer 35 to 40 minutes. Add drained limas; tomatoes; heat and season further if desired. Serves 6.

Tomato and Onion Soup

- 2 c. thinly sliced onion
- 2 T. butter
- 1 can consomme
- 1 can tomato soup
- ½ tsp. Worcestershire sauce
- ¼ tsp. salt

Milk

Cook onion in butter until lightly browned. Add consomme and an equal amount water. Simmer, covered, 15 minutes. Add tomato soup and an equal amount milk. Add Worcestershire sauce and salt. Heat, but do not boil. Serves 5.

Corn Chowder

- 1 2-inch square salt fat pork
- 1 large onion
- 4 c. diced potatoes
- 2 c. water
- 1½ c. whole kernel corn
- 4 c. milk, scalded
- 2 tsp. salt
- ½ tsp. pepper
- ¼ tsp. paprika

Cut salt pork into ½ inch cubes. Brown well in heavy saucepan. Add onion and cook tender. Add diced potatoes and water. Cover; cook until tender. Add corn, milk and seasonings. Heat and serve. Serves 6.

Hamburger Vegetable Soup

- 2 T. fat
- ½ c. chopped onion
- ½ lb. hamburger
- 1 tsp. salt
- 1 c. tomato juice
- ½ c. diced potatoes
- ½ c. diced carrots
- 3 T. flour
- 2 c. milk

Melt fat in heavy kettle. Add onion; fry until well browned. Add and brown hamburger. Add vegetables and salt. Cook until tender (20 minutes). Mix a paste of flour and part of milk. Stir into soup. Add remaining milk. Stir until thickened slightly. Season to taste with salt and pepper. Serves 4.

Cabbage Soup

- 1 soup bone
- 1 onion
- 1½ c. diced carrots
- 4-5 c. cabbage
- 1½ c. diced potatoes
- 1 can tomatoes
- Salt and pepper
- 1 c. cream

Boil soup bone in 3 quarts water until meat on bone is tender. Add onion, carrot and potatoes. Cook 10 to 15 minutes. Chop cabbage, then measure. Add with tomatoes to soup. Cook until cabbage is tender but not too soft. Add salt and pepper to taste. Remove from heat and add cream. Serve at once.

A Good Breakfast

Make it a habit to start the day with a nourishing meal

A HEARTY nourishing breakfast is a good beginning for any day. It gives one a bright outlook first thing in the morning and it makes a world of difference in how one feels throughout the day.

Breakfast should supply one-quarter to one-third of the day's nutrients. For men who do hard work and for growing children breakfast should consist of fruit or fruit juice, hot or prepared cereal, an egg served with or without meat of some kind, bread, butter and, for the children, milk. The homemaker may need less breakfast, but under no circumstances is it wise to think toast and coffee is enough.

Plan ahead if you wish to avoid monotony in the morning meal. There are numerous variations of tempting breakfast foods. Either hot or cold cereal is a must each day. Add dried fruit to hot cereal as it cooks or serve topped with fresh or canned fruit for a change.

Eggs may be cooked on top of the stove with bacon, ham or other meat. They may be poached or baked, scrambled or served in an omelet. Or they may be included in the pancakes, waffles, or French toast that is served on days when the homemaker has a little extra time before the breakfast hour. At other times plan on serving a hot bread, rolls, muffins or popovers in place of the usual toast. It will bring the family to the table right on time.

French Toast

- | | |
|-------------|----------------|
| 1 egg | ¼ tsp. salt |
| 1 c. milk | 6 slices bread |
| 3 T. butter | |

Beat egg, add milk and salt. Dip bread in milk mixture. Fry each slice in butter until brown and crusty on both sides. Serve immediately with butter and your choice of jams, marmalade and syrup.

Eggs in Tomato Cups

- | | |
|--------------|------------------|
| 4 eggs | 4 whole tomatoes |
| ¼ c. chopped | Salt and pepper |
| bacon or ham | |

Pour boiling water over firm tomatoes of uniform size. Remove skins and scoop out insides to make a shell. Drain and sprinkle inside with salt, pepper and bacon. Drop a raw egg into each shell. Place cups in baking dish and bake at 350° F. until eggs are set. Serve with strips of bacon.

Popovers

- | | |
|-------------|-------------|
| ⅞ c. flour | 1 c. milk |
| ¼ tsp. salt | 1 T. melted |
| 2 eggs | butter |

Heat oven before starting to mix popovers. Grease cups or muffin pans well with butter. Put into oven to heat while mixing batter. Sift salt and flour into mixing bowl. In separate bowl beat eggs until thick and yellow. Combine with milk. Make a hollow center of flour, gradually stir in milk and egg mixture. Add melted butter. Beat hard for 1 minute using egg beater. Pour into sizzling hot pans and bake 45 minutes, starting at 450° or 475° F. for 15 minutes, then at 350° F. Remove from pans while hot and serve at once.

Orange Raisin Muffins

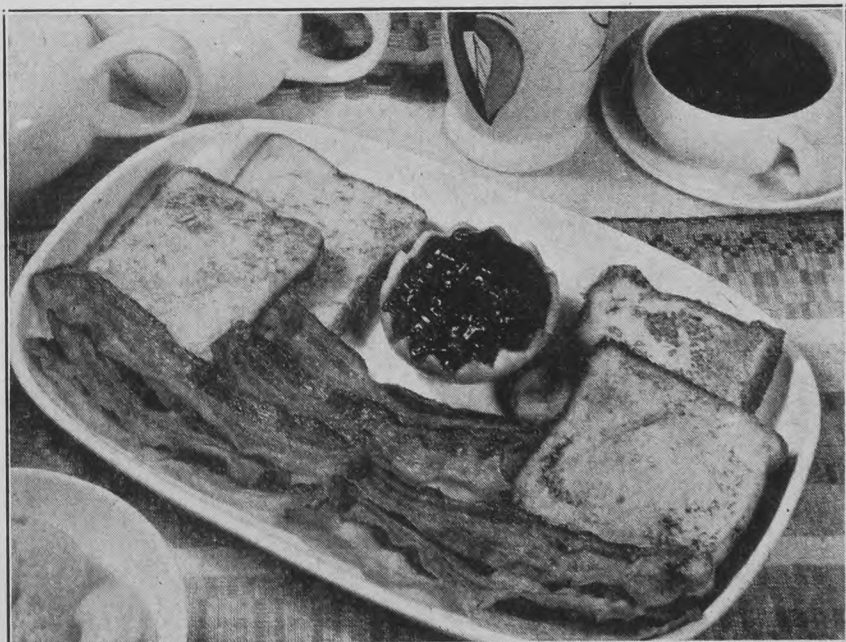
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|--------------------|-------------------|
| 2 c. flour | 1 egg |
| ¾ tsp. baking soda | ½ c. orange juice |
| ½ tsp. salt | ½ tsp. grated |
| ½ c. sugar | orange rind |
| ¾ c. sour milk | ½ c. shortening |
| ½ c. raisins | |

Sift together flour, baking soda, salt and sugar. Add raisins. Combine well-beaten egg, orange juice, rind, sour milk and melted shortening. Turn into dry ingredients and mix only until blended. Fill greased muffin tins two-thirds full. Bake at 425° F. for 30 minutes.

Breakfast Wreaths

- | | |
|-----------------|-------------------|
| 2 yeast cakes | ¼ c. chopped nuts |
| 1 c. lukewarm | ½ c. raisins |
| milk | 2 T. candied |
| 4 c. flour | citron |
| 1 c. butter | 2 T. candied |
| ½ c. sugar | orange peel |
| 2 eggs | 1 tsp. salt |
| ½ tsp. cinnamon | |

Dissolve yeast in warm milk. Add 1 c. flour to yeast. Mix well. Cover and allow to rise for 30 minutes until light. Cream butter, add sugar and continue to cream until light and fluffy. Add eggs one at a time and beat after each addition. Beat in yeast mixture. Add remaining flour which has been sifted with salt and cinnamon. Add nuts and fruit. Mix well. Place in greased bowl, cover and let rise in warm place until double in bulk. Place on floured board; knead until smooth and elastic. Roll dough to ½ inch thickness and cut in narrow strips. Flour hands and roll strips between palms until 8 inches long. Braid strips three at a time. Shape into a wreath. Let rise ½ hour. Bake at 350° F. for 30 minutes. Frost with confectionery sugar.



For a bright start any day serve bacon with French toast and coffee.

LUSCIOUS LEMON

4-Decker CAKE



**Bake it with MAGIC
and serve it with pride!**

Enjoy that satisfying inward glow... as friends exult over the success of *your very own baking!* This lemony-luscious treat is a real creation! Something *individual* to set before your guests!

And it's no trick at all to turn out such a distinguished cake when you use Magic Baking Powder. Indeed, success comes naturally when Magic is in the batter. Four generations of Canadian cooks have proved it so! Get time-tried Magic today—use it in all your baking.



Costs less than 1¢
per average baking

LEMON 4-DECKER CAKE

- | | |
|------------------------------|-------------------------------|
| 2¼ cups sifted pastry flour | 10 tbsps. butter or margarine |
| or 2 cups sifted all-purpose | 1 cup fine granulated sugar |
| flour | 2 eggs |
| 3 tsps. Magic Baking Powder | ¾ cup milk |
| ½ tsp. salt | 1 tsp. vanilla |

Grease two 8-inch round layer-cake pans and line bottoms with greased paper. Pre-heat oven to 375° (moderately hot). Sift flour, Magic Baking Powder and salt together three times. Cream butter or margarine; gradually blend in sugar; add unbeaten eggs one at a time, beating well after each addition. Measure milk and add vanilla. Add flour mixture to creamed mixture about a quarter at a time, alternating with three additions of milk and combining lightly after each addition. Turn into prepared pans. Bake in pre-heated oven about 25 minutes. Split layers of cold cake and put all together with lemon cake filling; cover with 7-minute frosting flavored with vanilla and lemon extract; decorate with well-drained maraschino cherries.

AMAZING COFFEE DISCOVERY



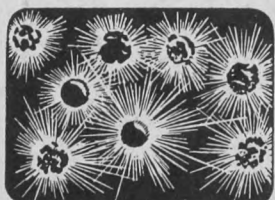
Not a powder! Not a grind! But millions of tiny "FLAVOR BUDS" of real coffee . . . ready to burst instantly into that famous MAXWELL HOUSE FLAVOR!

A DELICIOUS SURPRISE awaits you in this revolutionary new coffee . . . utterly unlike old-style "instants" . . . just as quick but tastes so different . . . so full-flavored, so full-bodied.

100% PURE COFFEE—NO FILLERS ADDED

It's all pure, roaster-fresh coffee — brewed for you in the spotless Maxwell House kitchens. At the moment of fresh-brewed perfection the water is removed — leaving

the miracle "Flavor Buds". JUST ADD HOT WATER and you'll get gloriously rich coffee *instantly*. You'll never again want the fuss and muss of "brewing your own".



See how the "Flavor Buds" "Come to Life" in your cup!

MAGNIFIED VIEW of miracle "Flavor Buds" at the instant hot water is added. See how "buds" release famous Maxwell House flavor.

SAVES YOU MONEY, TOO

Two ounces of Instant Maxwell House make about as many cups as a pound of ordinary ground coffee — yet save you at least one-third of the cost.

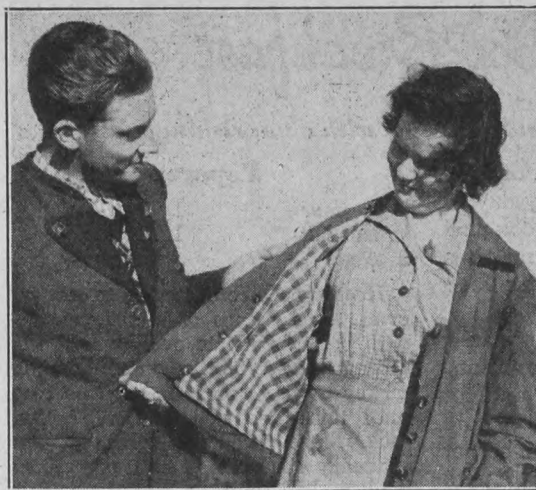
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A Product of General Foods

ASK FOR

Instant MAXWELL HOUSE

... the only instant coffee with that "Good to the Last Drop" flavor



Comfortable jacket with buttoned-in lining.

Clothes for the Job

Continued from page 72

wrap-around front to give complete protection. Armholes are deep and there are large pockets, set into side seams of skirt to provide storage for small tools. The hooded raincoat has proved extremely popular. The elbow-length sleeves provide freedom of hands and arms. For the market garden worker it provides excellent protection against rain and yet it in no way restricts movement. The waterproof gabardine jacket, with a buttoned-in flannel lining is suitable for wear on cooler days.

DURING January, 1954, the first wide-scale effort was made to arouse the interest of farm women in the new-style approved garments. Farm magazines and newspapers carried pictures of the various women's work costumes. Puppet models were made and sent on exhibition tours to various points throughout farm communities, accompanied by a demonstration lecturer from the Research Institute. At meetings of women the problem of suitable clothes for work, materials and washing were discussed. Patterns were distributed.

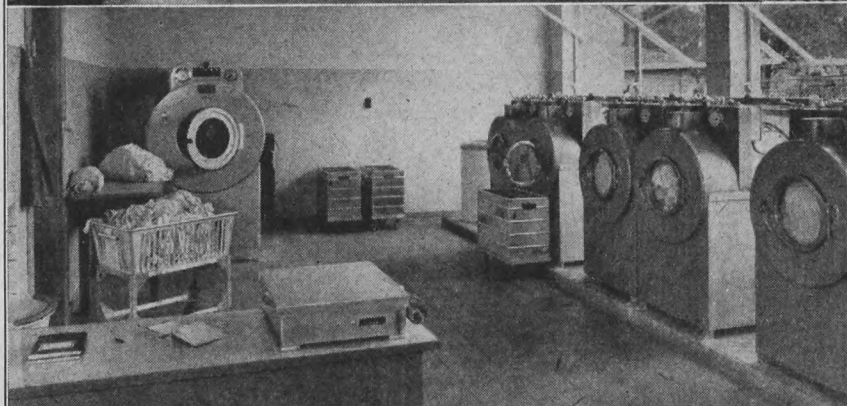
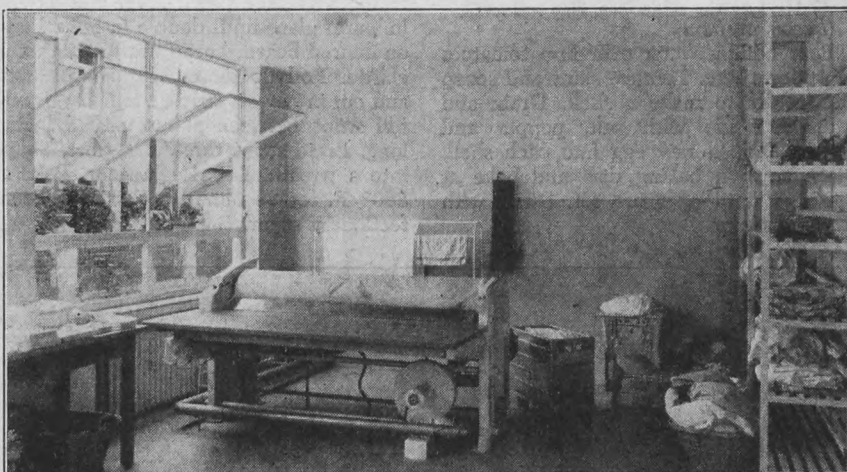
When the time for spring field work came, a number of women had provided themselves with clothes fashioned after the approved models. By mid-summer requests for patterns were pouring in from all over Western Germany. So successful has been this experiment in specially designed work clothes for farm women that further experiments were launched immediately to produce patterns for winter work clothes.

Thus at least one part of the farm housewife's clothing problem has been lightened, if not entirely solved.

OTHER organizations have been studying how best to assist the farm woman with the pressing problem of the lack of modern household equipment. All independent women's organizations were dissolved by the government under Hitler in 1934. By 1948 the German Farm Women's Union was established to assist rural women in alleviating some of the drudgery connected with their work.

The Union first considered the problem of the shortage of modern labor-saving equipment in the home, barn and in the fields of the average farm. Where a farm is small, and where the women do extensive outdoor work the Union stresses the importance of establishing implement and machinery "pools" for community use. Because there is still a shortage of such equipment and machinery and the fact that it is expensive, the pool idea has taken hold on farm people's thinking and planning.

Some 150 *Haus der Landfrau* (Farm Women's Haven) have sprung up in West Germany in the last three years. The *Haus der Landfrau* is a combination of a laundry and a bathhouse,



Interior first floor, showing laundry equipment of the Haus der Landfrau, at Alfter, a village on the bank of the Rhine River.

Here busy farm wives can have their family's weekly wash done in modern, automatic washers. They too can enjoy the comfort and convenience of a hot bath or shower while they wait for their laundry, or when they return to collect it.

Typical of such a laundry-bath set-up is the "Farm Women's Haven" built by the local credit union at Alf-ter, a small village on the bank of the Rhine River. It is a two-storey building, having the laundry room, baths and showers on the first floor. It houses eight showers and eight bathtubs. The second floor provides an auditorium for such uses as general community meetings, lecture hall and the holding of dances and other entertainments. The "house" is open from 7:00 a.m. until 9:00 p.m. The machines and the baths are seldom idle for long at a time. A staff of four

superintends laundry operations and the care of the baths and building.

THE country around Alf-ter is divided into small market gardens and fruit orchards of 30-acre farms or less. From March until November women from the 300-farm district, work side by side with their men in carrying on operations connected with the producing of fruits and vegetables, destined for nearby markets in Cologne and Bonn.

Such work is hard on clothes of the workers. Frequent washings are essential. Hours to do the family wash, taken out of the time required for garden or orchard, means an actual cost in money. The popularity of the laundry and bathhouse community project is easy to understand.

A low charge per pound is made for laundry work; including washing, dry-

ing and ironing, working out in our money at about five cents a pound. Showers are available for ten cents, baths cost twenty cents each. While the baths and showers are well patronized throughout the week, it is interesting to note that on a Saturday night there is a regular line-up of patrons waiting their turn to use these facilities.

The removal of the extra pressure of laundry tasks to be done after long hours of outdoor work; the satisfaction and comfort of an invigorating shower or bath; convenient and becoming work clothes, may seem small things in themselves. But they may be and are regarded as wonderful advances in West Germany, a country where the tasks of the farm wife are harder and heavier than the women of Canada have known since pioneer days.

TEETHING TROUBLES



At teething time, baby is often fretful because of irregularity or an upset tummy. Try Baby's Own Tablets. These mild, sweet little tablets are easy to take, taste good, and give prompt relief. Equally effective for constipation, digestive upsets and other minor infant troubles. In use by mothers for over 50 years. No "sleepy" stuff. No dulling effect. Get a package today at your druggist.

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Heavenly days! What heavenly nights you'll spend in the most luxurious sheets you can buy for so little money!

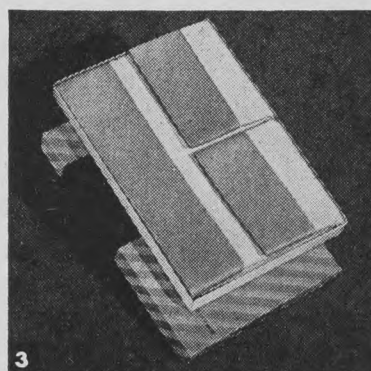
All these exciting fashions in sheets are Tex-made's lifelong-washable "Select" quality—that amazingly economical weave that's so soft to the touch. Yet they endure for years, though they're used and washed countless times!



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New! Sheets in 2 colours! 1 to match, 1 to blend with your decor!



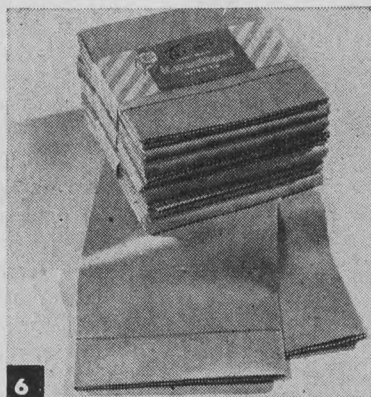
Coloured borders on white
...Now in four Petal Tone colours



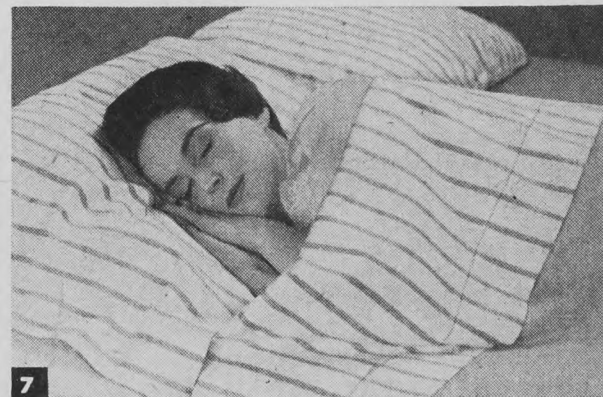
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Tiny flowers dance gaily across the bed!



Save work! Save time! Fitted Sheets slip on, keep taut. No mitring!



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How dashing! Candy Tone stripes in glamorous colours that last for life!

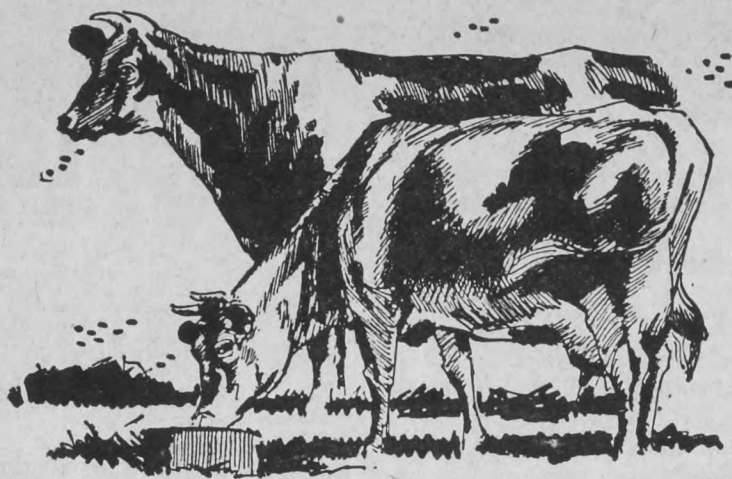


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50 lb BLOCKS, 5lb LICKS and
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Sifto adds the savor at the
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Sifto Salt gives you best results.

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3 ways better for your skin

Noxzema cleanses, softens, brightens your skin in a way no other cream—soap—alone can do. Here's why:

- 1. Cleans better** because it's *greaseless*—washes off with water, just like soap. But it *never* leaves skin dried out or drawn.
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- 3. Clears your skin** because it's *medicated*—five medicinal ingredients help heal blemishes fast... help protect your skin... help keep it glowing with vitality.

Get Noxzema today—you'll see results so fast! Don't miss this special offer!



Special! 40¢ jar of
NOXZEMA

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The Countrywoman

Continued from page 71

as a very young girl she visited the cottages of poor people and loved to tend and care for sick animals. It is easy to see how a girl of 17 years, convinced that she had "a call from God," yet unsure of her purpose in life, unhappy at home, slipping away to talk things over with John, a devout and steady young man who was then training for service with the Church of England Mission Society. Such a friendship developing into a deeper dependency and affection, could explain Florence's often expressed fear of her own love of pleasure and gaiety, of her liking for admiration and later as the most famous nurse of all time—her fear of her own fame.

John Smithurst, a student of the Church Missionary Society's Islington College, was ordained a Deacon by the Bishop of London at Christmas, 1838, and priested the following spring. Early in June, 1839, he sailed for York Factory on the Hudson Bay, to make the long river journey by boat, manned by Indians, to the Red River settlement. On this trip he was to meet and get acquainted with the type of people among whom he was to labor and serve for the next 12 years. He had no knowledge of their language and only a few of them spoke English. He was attracted to them and must have longed throughout the tedious journey that he could converse with them, to learn their thoughts and to gain some insight into his new work and home among them.

His instructions when leaving England had been to proceed to the Red River Settlement and to serve as chaplain at the two Hudson's Bay Company Forts; Upper and Lower Fort Garry. On the river journey he learned that a band of Indians under Chief Peguis, a friend of Lord Selkirk, located at what was known then only as the "Indian Settlement"—some 10 or 12 miles further down the Red River—were expecting him, that they had already built a house for him, that they hoped he would carry on the work of a "praying master" as well as to assist them in the manner so ably begun by Rev. William Cochran in tilling the soil and establishing homes for themselves and their families.

For the story of John Smithurst's life and work in the Indian Settlement, we are indebted to the first authentic, co-related study done by Rev. T. C. B. Boon, B.A., Archivist to the Ecclesiastical Province of Rupert's Land. This study was presented to the Manitoba Historical and Scientific Society and published in 1954. Mr. Boon brought to his research a knowledge of the area and a love for the study as he served for some years as incumbent of St. Peter's Church, which was established there after John Smithurst left the West. The country round about is a maze of creeks, rivers and lakes, frequently known as the Netley Creek or Netley Marsh area. It is a district now frequented by and popular with hunters of wild game. The band of Indians there were Salteau and Swampy Cree, headed by Peguis, who had petitioned the Mission Society to send them a new "praying master."

On arrival at the Red River Settlement, John paid an official visit to the Governor and wrote in his diary:

"I declined acting on instructions given me in London. The Indians had been told in a letter that I was coming to them. So I told the Governor that I must decline living at the Fort or taking the two Upper Churches. I purposed fixing myself at the Indian Settlement. . . ."

Mr. Boon writes: "Without any exact information I judge that he was about 32 years of age at this time and he was evidently an experienced agriculturist. The only portrait we have of him was evidently taken in later life and suggests a man in the true Georgian tradition of clergyman-farmer."

Mr. Boon had in his possession for a while the private Register of Births, Marriages and Burials which John Smithurst kept during his ministry while on his first stay in what was known later as western Canada. The first entry was a baptismal service at Norway House in September, 1839, and the last a burial service registered at the Indian Settlement on April 1, 1851. Mr. Boon notes John's travels out to other points, his learning of the Indian language and the important occasion of the Bishop's visit to the church, where on a June morning, 1844, the visiting dignitaries found Rev. John Smithurst and an assembled congregation of 250 waiting to receive them, "The service was in English, the Lessons translated by an interpreter." The Bishop was favorably impressed by the cleanliness and order of dress of the members and noted later in his Journal that these people were a most agreeable contrast to the Indians he had met so far on his journeys.

Being a missionary meant many extra duties, acting as adviser in times of illness, even aiding with the care of the sick and dying. Perhaps John did not report so fully on these but he did report on the living conditions at the settlement, the neat church with its spire surrounded by cottages, the cultivated fields, the cattle grazing along the banks of the river, the mill that had been erected so that the Indians might convert their grain into flour. A report written by him in 1841 to the Missionary Society states: "Crops very fine. Barley reaped today, twelve weeks since it was sown. Two hundred bushels of potatoes and abundant corn. Indians are working for their winter clothing by clearing ground."

For two years, beginning 1846, John Smithurst voluntarily acted as chaplain to troops stationed at Lower Fort Garry, travelling the twelve miles in all kinds of weather on horseback. Before leaving the West he gave some service as a Councillor of Assiniboia, which would indicate that he was regarded as a man of judgment and with some weight in the community.

John at Elora

John Smithurst left the Red River in 1851, returning to England. In less than a year he was back in Canada, going this time to Elora, Ontario. And here is given an account written by Beth Peteran of Willowdale, Ontario, together with sources of information:

John remained as rector at St. John's Church, Elora, for six years, before retiring on account of ill health to a 400-acre bush farm, 35 miles from Elora, in the township of Minto.

(Please turn to page 81)

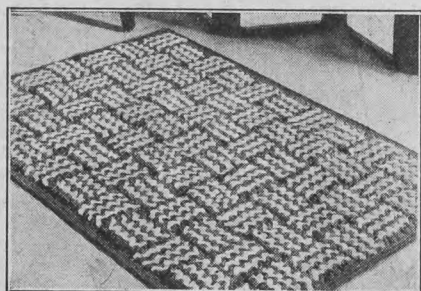
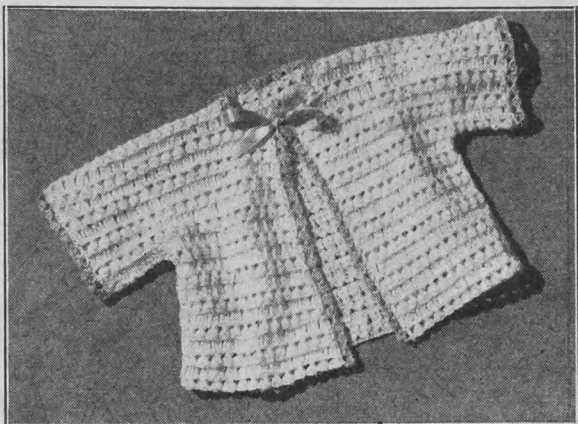
Ideas in Crochet

Colorful items, quickly made for gifts, home or bazaar

by ANNA LOREE

Design No. 5211

For the summer baby here is a lovely jacket that is cool yet affords comfort to the new-comer. Crocheted in a cluster design it takes but a few hours to make. You will need 5 balls white size 5 pearl cotton, 1 ball pink or blue; a No. 2/0 steel crochet hook and 1/2 yard narrow ribbon. Design No. 5211. Price 10 cents.

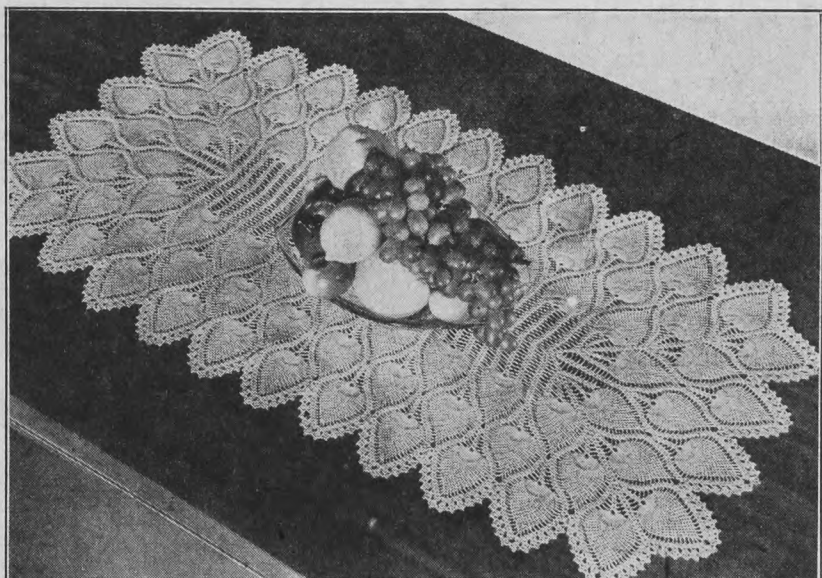
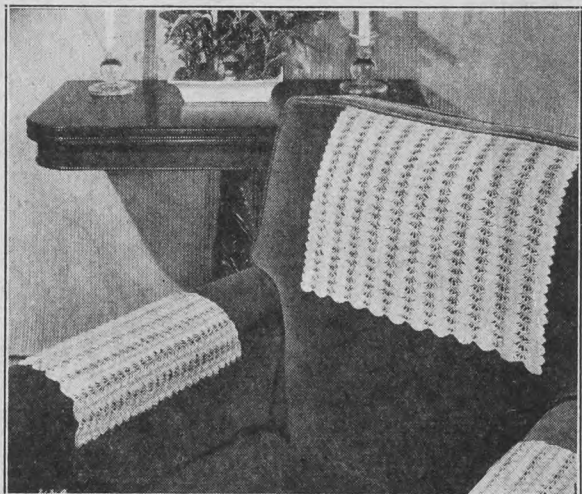


Design No. CS-415

This rug is quickly crocheted of heavy cotton in white and a color, two shades of one color or of contrasting tones. The blocks, 77 in all, are made separately and sewn together; then a border added. Completed it measures 24 by 39 inches. Rug requires 13 balls of light, 26 of dark colored cotton, and a No. 2/0 steel crochet hook. Design No. CS-415. Price 10 cents.

Design No. 5-120

The shell design in this chair set is as easy to do as it is attractive. The set does wonders in protecting chairs and chesterfield from the natural oil in the hair and from grubby hands. Chair back measures 12 by 16 inches, the arm pieces 7 by 12 inches. You will need 10 balls size 8 pearl cotton and No. 9 steel crochet hook. Design No. 5-120. Price 10 cents.



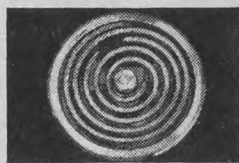
Design No. C-7650

The pineapple—the most popular of all crochet designs—is again presented; this time in an 18 by 38-inch runner. Make it in white or ecru for the coffee

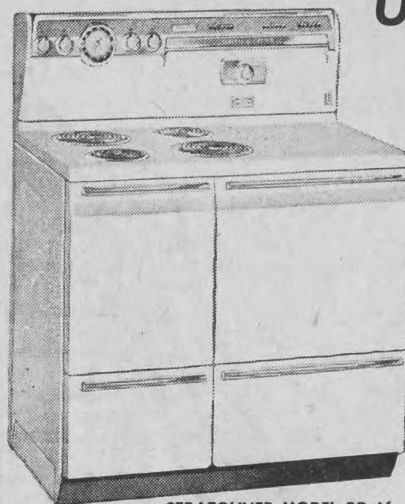
table, buffet or table top or in a pastel for bedroom dresser or chest. You will need 9 white, 11 ecru or 14 balls in a color of size 30 crochet cotton and a No. 10 steel crochet hook. Design No. C-7650. Price 10 cents.

Address orders to The Country Guide Needlework Department, 290 Vaughan Street, Winnipeg 2, Manitoba.

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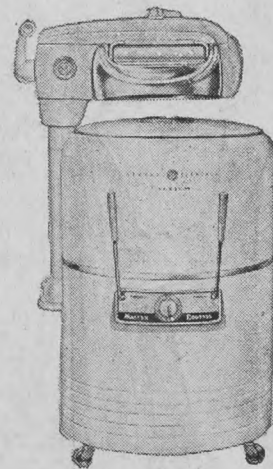
Next time you're in town, see all the new G-E Ranges for '55. There's a model priced to suit every need.

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You'll get a cleaner, brighter wash — faster and easier — every time with this outstanding G-E Custom Washer! Features: G-E "Grouped Controls" . . . Automatic Timer . . . Extra-safe "Instinctive" Wringer . . . Pump, empties tub in 90 seconds. And of course you get the famous G-E "3-Zone" Washing Action on all G-E washers! Come in and see them!



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You'll love the time-saving convenience of this unique 2 1/2-gallon tub which fits inside any regular G-E Washer. Gives you same thorough washing action. Solves your daily "small-wash" problems. Ideal for baby clothes, diapers, dish towels, lingerie.



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In a Casual Mood

No. 1124—Use striped and plain cotton for novel overblouse, slim skirt, little-boy shorts and jacket included in this pattern. Sizes 11, 12, 13, 14, 15, 16 and 18 years. Size 14 blouse requires $1\frac{1}{2}$ yards, skirt 2 yards, shorts $1\frac{1}{2}$ yards and jacket $2\frac{1}{2}$ yards 36-inch material. Price 50 cents.

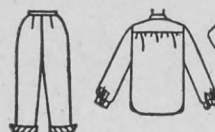
No. 4901—Inner-outer shirt and slim pedal pushers are just right for the teenager. Blouse has convertible neckline, front and back yoke. Sizes 10, 12, 14 and 16 years. Size 14 requires for shirt and facings $2\frac{1}{4}$ yards, pedal pushers $2\frac{1}{2}$ yards 36-inch material. Price 35 cents.



1124



4945



4901



4977



1033

No. 4945—Easy-to-wear rambler jacket for relaxing and sports features back yoke, full-length sleeves and convertible neckline. Sizes 12, 14, 16, 18 and 20 years. Size 16 requires $3\frac{3}{4}$ yards 36-inch or $2\frac{1}{2}$ yards 54-inch material. Price 35 cents.

No. 1114—Sleeveless shirtwaist sheath dress is right for town or country; features convertible neckline, and slim skirt with low side pleats. Sizes 12, 14, 16, 18 and 20 years. Size 16 requires 3 yards 36-inch material. Price 50 cents.

No. 4977—Blouse with cape collar edged in ribbon has the casual look you like. Sizes 12, 14, 16, 18 and 20 years. Size 16 requires 2 yards 36-inch material. Price 35 cents.

No. 1033—Easy-to-make skirt of pre-pleated cotton can be cut and sewn in a jiffy. Other version is gathered skirt of border fabric. Sizes 24, 26, 28, 30 and 32-inch waist. For pre-pleated skirt you need number of inches your waist measures plus 1 inch and a plain strip for band. Gathered skirt requires 3 yds. material. Price 35 cents.

No. 4464—Slim tapered slacks and a ruffled shirt with full sleeves or a casual overblouse makes attractive at-home wear. Sizes 11, 12, 13, 14, 15, 16 and 18 years. Size 14 requires for slacks $1\frac{1}{2}$ yards 54-inch, blouse $2\frac{3}{4}$ yards 39-inch material. Price 35 cents.

State size and number for each pattern ordered.

Note price.

Write name and address clearly.

Order Simplicity patterns from The Country Guide Patterns, Winnipeg 2, or direct from your local dealer.



4464



The Countrywoman

Continued from page 78

He named his place "Lea Hurst" after the Nightingale home in Derbyshire. He lived there for the next ten years until his health failed entirely and he returned to Elora to be care for. He died September 2, 1867, at the age of 59 and was buried in the Elora cemetery. Florence Nightingale outlived him by 43 years.

A silver Communion set in the church of St. John the Evangelist, at Elora perpetuates the memory of this noble pair. It was a gift to John from Florence, shortly after he became rector of the parish. It is said that he wrote her telling of his new charge, still hoping that she might join him and become his wife. Florence by then had dedicated her life to the nursing profession. Her reply came in the form of the silver Communion set for the church. At each Communion Service that John conducted thereafter he used the set. It kept alive his memory and love for Florence. To both it must have stood as a crowning symbol of the sacrifice which each had made.

This plain silver Communion set remained in constant use in St. John's Church until 1945. In that year a steel vault with a shatterproof glass front was set in the wall, between the chancel and the vestry, and here the gift of Florence Nightingale is thenceforth to be kept. Painted on the wall

above the vault, in muted colors is the figure of the "Lady of the Lamp" with a suitable brief description of the man and woman to whom personal love was denied, that they might minister to mankind; she to their bodies and he to their souls.

Note: John Smithurst confided his story of his love for Florence to an Irish couple, Jamie and Mary MacCague, who were among his first parishioners at Elora. Mary MacCague gave the story to a reporter of the Toronto Sunday World, which subsequently published the interview. The father of John Connon, the author of the History of Elora, was an intimate of John Smithurst and was told of "the engagement to Florence."

When Florence Nightingale died in 1910, Dr. A. H. Paget, who had attended John Smithurst in his last illness revealed that John had confided in him the story of their romance and engagement to marry. Netley Hospital, London, with which Florence was associated during its planning as a suitable military hospital—bears the name of the area where John first worked in Canada. The books having a bearing on their story are:

The History of Elora by John Connon; *The Rainbow of the North* by Miss S. Tucker; *The Love Story of Florence Nightingale and John Smithurst* (published by the Church of St. John the Evangelist, Elora, Ontario.)

Hints for Today

Time and energy-saving ideas for around the house

by BLANCHE CAMPBELL

Two good-looking serviceable aprons can be yours for nothing. In these days of high prices when everyone is stretching every dollar to the limit I have learned to turn my old dresses that would ordinarily be discarded into useful aprons. I rip the dress up the sides and turn it into two aprons, one from the front, and one from the back. Bind raw edges with bias tape or finish with a narrow hem. Cut the dress belt in half and add it to each side for tie strings. The material in the sleeves can be turned into ties for the other apron. But if the dress happens to be sleeveless the ties may be made out of bias tape, or a piece of contrasting material.

Tasty broccoli—Lend interest to your menus by serving more broccoli. Give the family a real surprise by making a casserole of broccoli flowerets cooked, then dressed with a cream sauce, and topped with buttered crumbs and grated cheese. Bake 30 minutes at 325° F. Crumbs will be nicely browned and cheese melted on top.

To cut string beans like a professional chef into fancy, thin, diagonal strips use kitchen scissors instead of a knife. They will not look ragged or uneven. You will find that it is a quick and easy way of preparing them.

To store cheese so as to keep it from drying out or molding keep it well wrapped and tightly covered, and store it in the refrigerator. Wrap it

securely in oiled paper or aluminum foil, and then place the wrapped cheese in a small box. An empty candy box does very well for this.

When making button holes in soft, fine material I have found that it is much easier to work them if I rub a tiny bit of library paste on the wrong side and let it dry before cutting the buttonholes. It will make a neater cut, with no raveling, and is so much firmer to work on, making a much better looking button hole than otherwise possible.

Make a nice filling—Wash all the discarded silk and nylon articles you can gather up. Cut them into tiny pieces. They will provide the filling that you need for pillows or children's stuffed toys. They make about the nicest, softest filling that I have ever used.

To keep linens white—Give the shelves of the linen closet a coat of blue enamel paint. This not only brightens up the shelves, making them look more attractive, but will keep linens from turning yellow due to storage.

When paste shoe polish becomes dried out and hard it can be made usable again with the addition of a few drops of turpentine. This will do just as good a job of polishing as it did when new, and prevents any waste.

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Race 15B Stem Rust First Seen in 1939

The common barberry plays host to new rust races in northern wheat regions

THE fact that new races of rust continue to develop on barberry bushes makes it exceedingly difficult for the plant breeder to keep farmers supplied with varieties of grain fully resistant to this disease. Last year, western Canada had the first serious epidemic outbreak of rust since 1936, which was the result of a combined attack by race 15B of stem rust, and leaf rust.

According to Vance V. Goodfellow, entomologist, North Dakota Agricultural College, the first discovery of race 15B was on a barberry bush in the Webster County, Iowa, in 1939. "By 1950," he said recently, "the new race of rust had become independent of the barberry as a host plant and had spread to the wheat fields of the southern states. Quickly multiplying in the

mild climates of Texas and Northern Mexico, where it does not need the barberry, the disease was carried on prevailing winds to the wheat areas of the northwest."

Mr. Goodfellow urged that by eliminating the barberry, on which rust depends in the northern states, it is possible to prevent future rust damage to the varieties of wheat now being developed to resist 15B rust. A barberry eradication program has been conducted on a co-operative federal-state basis over 18 states, since 1918. Some barberry bushes still exist and should be eradicated by anyone who sees them. The problem is to find them. A few have been found recently in Manitoba (see *The Country Guide*, February, 1955, page 40). V

Australia's Wild Dog Menace

The dingo raids from the desert over 25,000 square miles of country where four states converge

by JOHN PATRICK GILLESE

THE recent announcement by the Queensland government that a million and a half poisoned baits have been dropped for dingoes in the Never Never country of Australia, sounds a doomsday note in that country's long and costly war with its true wild dogs. Across the outback country, owners of sheep stations (ranches) have fought the dingoes since the days of sail, never able to hold their own against the wary dog packs rampaging from the rim of the Simpson Desert, down through the sheep pastures of Queensland and New South Wales.

In the past few years, however, many of the dingoes have been forced back into some 25,000 square miles of lonely country, near the borders of southwest Queensland, the Northern Territory, South Australia and the northwest perimeter of New South Wales. It is in this area that the government's specially fitted Dragon plane is sowing its lethal, strychnine-treated "candies," at the rate of 60 to the mile.

In normal times, the wary dingo, much like Canada's western wolf, soon becomes poison-shy; but officials hope that, because of the current rabbit extermination program, starvation may force the dingoes to be less choosy than before. Ranchers will continue their phase of the long dingo-control program, trapping the wild dogs around carcasses, shooting them from horseback, jeeps and two-wheeled gigs. Outside the poison area, anyone may still claim the one-pound bounty, paid at every police station, for each dingo "scalp"—which, to prevent fraud, must include the skin of the cranium, together with both ears and a long strip of hide back to the tail. Cost of the bounty, paid under the Pastures Protection Bonus, has been enormously heavy over the years: even back in 1919, bounty was paid for no less than 4,290 dingoes in the

West Darling area of N.S.W. alone.

The Pastoralists' Association furnishes some startling figures on the damage done by the marauding dingo packs. They point out that in 1891, there were 15 million sheep in the Western Division of New South Wales. By 1911, despite an increase of sheep stations and more attractive markets, the number was down to seven million. By 1923, it had slipped to 4,765,000. The association blames dingoes for half the continuing decline over the years. Along with wild boars and the rabbit hordes, the dingoes were threatening the woolly backbone of Australia's economy.

WHILE the true dingo is as native to Australia as the kangaroo, many of today's great packs are a cross between dingoes and once-domesticated dogs. The average dingo is about two feet high and measures, roughly, five feet from nose to tail-tip. Thick-set, savage and silent in their moonlight raids, they run the color range. Most are black or white, or mixed; a few are a speckled bluish-grey and white; others a tawny yellow. Mostly they attack sheep, slaughtering whole folds in an orgy of blood-lust and starvation. On the desert and outbacks, they live mostly on rabbits, though packs of them hunt down even the hard-punching kangaroos.

J. N. Kidman of Lindfield, Sydney, N.S.W. (a relative of Sir Sydney Kidman, one of Australia's greatest sheep-ranchers), related to me an interesting story concerning a wallaroo pursued by a pack of nine dingoes. Related to the kangaroo, the wallaroo has a deer-shaped head and bent-over back, caused from a lifetime of huddling in rocks and crevices. On the desert, they are helpless against the dingo, which strikes savagely from the side, gouging mouthfuls of meat from its victim. This particular wal-

laroo managed to make a clay water pan before the dog pack overtook it. On the desert catchpool, the warm yellow water lay about four feet deep—too deep for the ravenous dingoes to get footing for an attack. At the dog-leader's signal, the pack plunged into the water, their strategy obviously being to converge on the wallaroo's exposed chest and head. Twice the wallaroo's hands managed to thrust a dog's head under, where the powerful hind feet destroyed him; but it was a losing fight. The wallaroo was weakening to the point of helplessness, when Kidman's rifle changed the balance of power and sent the remnant of the pack back to the desert hills.

Speed is the essence of the current poison campaign, for while the decrease in rabbits caused the wild dogs to abandon all caution, indications are that shortage may not continue. Under the initial impact of a new and deadly virus, myxomatosis, 90 per cent of the rabbits have been wiped out in certain areas. However, Dr. Frank J. Fenner, of the National University at Canberra—the man in charge of myxomatosis research—states that in such areas the peak of mortality has probably been reached. The handful of rabbits that manage to survive apparently become immune to the virus; and it is feared that they may breed a new horde, completely immune to what promised to be the first real solution to the rabbit plague. V

Land Judging Competition

ON May 20 young farmers and high school students in the Humber watershed of Ontario will take part in a land judging competition—the first of its kind to be held in that province. This contest is open to all young farmers and secondary school students in Peel County. The Humber Valley Conservation Authority and Peel County agricultural representative, J. W. McCullough, are joint sponsors of the project.

Some 50 contestants will be taken to a farm north of Brampton where a Land Use plan has been in operation for three years, and there given a chance to test their knowledge of land use. They will determine the soil types, drainage courses, and land capability in each section, and decide to what degree these features are being utilized.

The Land Use Program of the Humber Valley Conservation Authority provides farmers with soil analyses and drainage studies, then advises them on the best methods of applying their resources in their annual cropping program. V

Manitoba Feeders' Day

FRIDAY, June 3, is the date of the Annual Feeders' Day at the University of Manitoba. The program will include an authority on silage and roughage feeding problems, as guest speaker, and a panel discussion on livestock problems, conducted by the staff of the University's Animal Science Division. In addition to this, visitors will be given a review of the work completed by the Division over the past year. All farmers who are able to do so are urged to attend this worthwhile event. V

IFAP Meets In Washington

Trends in international trade and U.S.-Canadian marketing relations were discussed at this international farm meet

THE third meeting of the North American committee of the International Federation of Agricultural Producers (IFAP), held in Washington last month, saw delegates from the Canadian Federation of Agriculture voice concern over the special waiver granted the United States at the recent GATT conference. American farm leaders present tried to reassure the Canadians that the U.S. government would not abuse the privilege, and that the urgency of the latter's surplus problem made some import restrictions necessary. Actually, the GATT decision merely gave official sanction to a practice the U.S. government had been engaged in for some time, so the Canadian protest was more a matter of record than anything else.

After the Canadian frown had been duly registered on the assembly, the meeting settled down for a look at world market prospects, and found these none too good. The director of IFAP's North American office, L. A. Wheeler, reported that no export market for butter existed anywhere, not even in countries within the Soviet sphere. While Britain could absorb some, sales could be made there only at the expense of Denmark and New Zealand. Thos. Eastwood, a staff member of FAO, gave an account of the work done by that body in developing markets for dried skim milk. In some countries, domestic dairy interests opposed the importation of skim milk powder, while others placed high duties or restrictions on importations. A proposal was made that dairy boards made up of various interests, including the governments, be set up in these countries to handle the situation—a system that has worked well in Egypt.

One feature brought out at the meeting was how greatly the whole future trend of international trade and co-operation for surplus commodity disposal depends on U.S. government policies and action. The reluctance of U.S. legislative bodies to have their administration hog-tied by any international agreements which might interfere with their freedom to make their own pacts and policies according to their own domestic needs and desires, is well known. In spite of the concessions granted the United States at the last GATT conference, an extension of the U.S. reciprocal trade act barely passed the Lower House, and is now in front of the U.S. Senate. To date, the United States has refused membership in a new international commodity trade commission, established under the Economic and Social Council of the United Nations, and will not participate in the GATT working party. The influence of American production on world markets is so great that its refusal to become an active partner in these organizations could reduce them to the status of international debating societies, or kill them altogether. The world trade outlook, therefore, hinges in no small way on how the U.S. Congress will act.

No nation is more concerned for future trade trends than Canada:

Speaking for the Canadian delegation, T. G. Babier of the Saskatchewan Wheat Pool, pointed out that our grain surplus was not a result of price supports (as in the U.S.), but because a series of bumper crops enabled western Canada to produce in three years what was normally produced in five. It was admitted that Canada had taken advantage of U.S. prices in exports of oats and barley, forcing the U.S. to impose import quotas. But it is expected the latter's reduction of the support price on these items will help to solve the problem. The U.S. also reduced dairy support prices from 90 to 75 per cent of parity, and cut government buying by 41 per cent, bringing the support price on butter down to the level of Canada's present support price.

A good deal of interest was displayed in Canadian price supports, and in our grain marketing programs. The intense interest shown by American delegates over details of our system of grading wheat, and marketing wheat and coarse grains under the Canadian Wheat Board, indicated they were learning things they never were aware of before (and possibly, we shouldn't be telling them). It was shown how the Board is not a money-making organization, that all moneys—except for necessary charges—go back to the producers; that the farmers themselves are under quota deliveries, and must hold much of their crop at home until there is a place to put it.

C.F.A. President Hannam explained the present Canadian price support program, and proposals of his organization for a definite formula for fixing support prices for various commodities from time to time. Canada's support prices are not established at incentive levels, but at what is considered a fair percentage of parity, and are generally within the range of 65 to 85 per cent of parity proposed by the C.F.A. As an example, the butter program worked in the interest of both consumer and producer, because the government allowed the trade to sell only at the support price, plus agreed charges for storage and handling.

Canadian delegates made special mention of U.S.-Canadian relations in the potato marketing field. Canada's only tariff against U.S. potatoes was for a six-week period, but the latter maintained a continual tariff, plus grading restrictions which barred a considerable volume of Canadian production. American exporters can truck potatoes into the Maritime Provinces, and then take advantage of special Maritime freight rates to ship them to the Montreal market.

In the closing sessions of the conference, the record of IFAP was examined to see if the organization had proved worthwhile. It was agreed the body filled a useful function in impressing various governments on the need of action along certain lines in the international food and agriculture field. "Without IFAP," said C.F.A. President Hannam, "there would have been no International Wheat Agreement."

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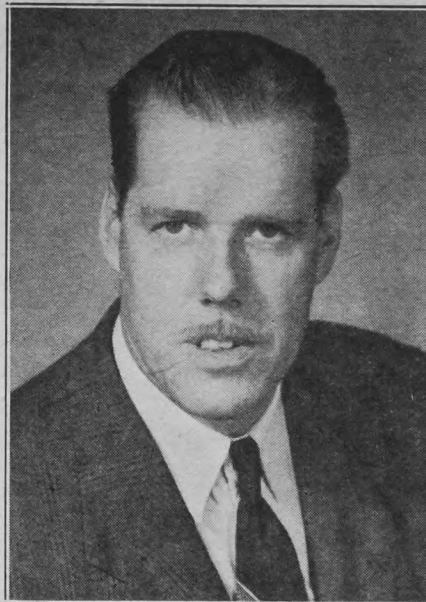
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J. G. (Jack) Stothart, senior animal husbandman at the Lacombe Experimental Station, and Dr. H. T. Fredeen, animal husbandman, have been responsible for the breeding, selection, and most of the testing which has yielded Canada's first new swine breed.

Canada's First New Swine Breed

Continued from page 7

to a mere crossing of breeds—and grandfather's old "spotted hawg" reappeared in alarming numbers. With his coming, particularly in Alberta, down went the market quality of hogs.

A LOOK at any stockyards or packing plant today will show what is happening. Too many black and red and spotted hogs are coming to market. Packers are still rerouting carcasses through the processing line a second time, in the attempt to rid them of surface pigments. They are losing valuable cuts of bacon because of "seedy bellies" from colored hogs; and, as a result of indiscriminate crossing, there are too many short, fat hogs among the white ones.

Housewives have no means of inspecting hogs coming to market, but they do watch the pork and bacon in the stores. They complain that it isn't what they want; and now that beef prices have come down within their reach and poultry meat is cheaper, they are passing up pork and turning to other meats.

Swine breeders have had a system of Advanced Registry testing of breeding stock available to them since 1928. It has been altered and remodelled once or twice, but on the whole breeders have not taken kindly to it. They have adhered jealously to the old show-ring standard of judging the performance of a breeding pig when it is alive and on its feet, when, in truth, its ability to produce a uniform quality good carcass can only be properly determined when its progeny are killed and hung on the rail.

Jack Stothart insists that too much emphasis is placed on the show-ring, where breed fads have often obstructed rather than contributed to progress. Even when advanced registry has been accepted and used, it has often been misused. Breeders and auctioneers often say that a pig offered for sale is "from an A.R. herd," when in reality very few litters have ever been tested. Again, a sow is often advertised as an A.R. sow, when in effect this is not true. It is not the sow, but the mating between the sow and a particular boar, which has qualified.

WHATEVER the influences that may have exerted an effect at a particular time and place, the fact remained that by the end of World War II there was a definite need for swine improvement throughout most of Canada. A committee was appointed by the Canada Department of Agriculture in 1946, and charged with studying the swine breeding situation and the work being done by the Department in relation to this problem.

The committee did make a study of the work that was under way in Canada, and it also visited leading swine research stations in the United States. Eventually, it made two important recommendations. The first was that there should be an extension of research looking toward improvement of the Canadian Yorkshire. The second was that there should be developed a new white bacon breed containing no Yorkshire blood, which would be suitable for crossing with the Yorkshire.

Because the Experimental Station at Lacombe is in the center of an important hog-producing area, where cross breeding had become a very common practice and because Alberta is the second most important hog producing province in Canada, 10 high quality Berkshire gilts were obtained from Ontario breeders in 1947 and placed at Lacombe. They were bred there to two Landrace-Chester White boars. One of them came from the U.S.D.A. research center at Beltsville, Maryland, and the other from Washington State College, Pullman.

In 1949 and 1950 the offspring from these crosses were back-crossed to three other Landrace-Chester White boars, obtained from the Central Experimental Farm, Ottawa. Also, in 1951, two purebred Landrace boars were obtained from the United States Department of Agriculture so that more Landrace breeding could be included in the project. The result was that the foundation stock of the new breed, now announced, consisted of 10 Berkshire sows, five Landrace-Chester White boars (carrying between 47 and 71 per cent of Danish Landrace blood) and two pure Landrace boars. All animals were of good bacon type.

Since 1952 no new blood has been introduced into the herd. It has been "closed" and the matings have been

made on the basis of selections determined on litter, individual, and litter-mate performance. Standard Record of Performance practices have been followed in a piggery at Lacombe maintained for the purpose of conducting tests with litter groups of four pigs. Thus, records were made available of the amount of feed used, the rate of gain, and an appraisal and scoring of carcass quality, or of leanness based on measurement and weight.

The remaining pigs in each of the test litters were raised as breeding stock. Selections were made from them on the basis of growth and individual type, litter size and weaning weight of the litter from which they came, as well as the carcass quality, rate of growth and feed efficiency of the four litter mates tested. Only individuals from litters of above-average performance could be retained as breeding stock. Sows were carefully selected for the number of teats, using 14 as the minimum for selection.

THROUGHOUT the entire period of developing the breed, it has been compared, under identical conditions, with a high-quality strain of inbred Yorkshires developed at the station. In 1953, comparative testing of this strain of Yorkshires and cross-breeds of the two breeds was begun at the Experimental Station, Scott, Saskatchewan, where the Yorkshire herd is somewhat different from the herd at Lacombe. The next year, 1954, a unit of the new breed was established at the Experimental Farm, Indian Head, where it could be compared with another sample of Yorkshires. It is from analysis of the tests made at all three stations, that the present evaluation of the breed has been made.

In addition to these tests at experimental stations, co-operative tests with commercial breeders are now under way. These breeders have been supplied with boars, to which they breed half their sows, while breeding the remaining half to their own boars. Results from these tests are not available, but much of the usefulness of the new breed will depend on results of this kind. When the original recommendation was made for the production of a new breed, it was to be one which would produce good bacon itself, and, when crossed with Yorkshires, would also give hybrid vigor and good quality carcasses to its crossbred offspring. The new breed appears to be able to meet these requirements. v



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Next, be careful to keep the relief valve in the milker system operating because your tractor will produce a higher vacuum than the milker re-

quires. You may have to keep a close check on both the vacuum gauge and the pulsation rate while the milker is in operation, and adjust the tractor speed accordingly. Remember, slow engine speeds give the greatest vacuum.

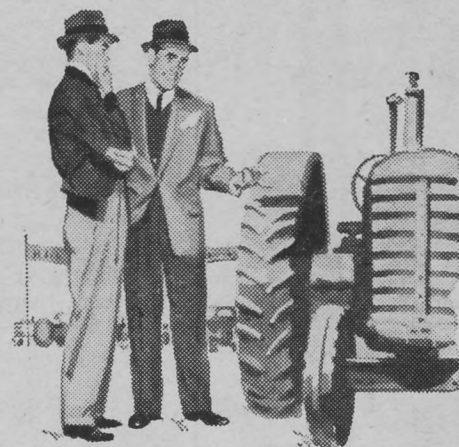
Another thing, stall cocks should be opened gradually—a sudden change in the line vacuum could stall your engine. To avoid fouling the tractor motor by the continued slow operation, you should keep the radiator temperature at near the boiling point, and run the engine at higher speeds for a short time after each milking. v

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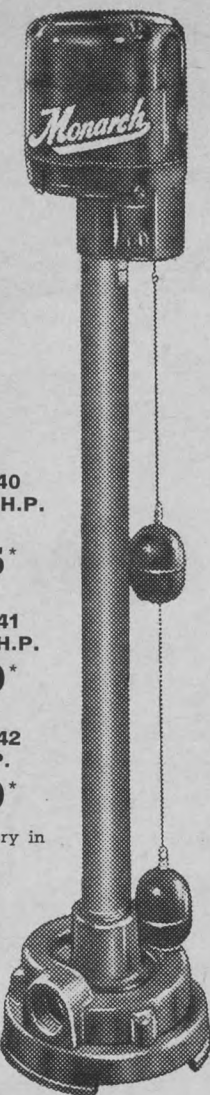
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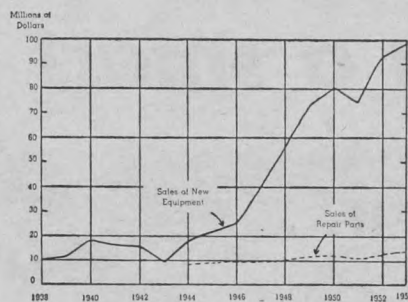
Generally Speaking...

no matter how big or how wealthy an advertiser, he cannot afford to advertise a poor quality product. The advertiser's name or his brand on a product is your assurance that satisfaction is guaranteed.

Machines Have Changed Sask.

Continued from page 10

and there were 106,700 in 1951. Trucks increased from 3,300 to 50,000, and combines from 6,000 to 43,000. Cars have been fairly constant, with 52,000 on farms in 1926, 65,000 in 1931, and 63,000 in 1951. The other side of the coin is a decrease in binder numbers from 129,177 in 1931, to 70,584 in 1951, and in threshing machines, from 27,046 to 19,221 in the same period. It is certain that a large number of the binders and threshing machines on farms in 1951 were not in regular use, which makes the effective decline even greater.



Sales of new equipment have leapt upward in the last few years.

In 1951 there were two tractors for every three persons employed in Saskatchewan agriculture, compared with one for every seven persons in 1926. A recent trend toward larger tractors and larger machines to use with them—harvesting and tillage equipment—suggests that the investment change was even greater than these figures suggest.

The impact of mechanization differed both among areas and farms. The prairie area of Saskatchewan mechanized sooner and more rapidly than the park area, and farmers on large farms mechanized much sooner than their neighbors on small farms. Some of the smaller farmers who did mechanize completely have found it necessary to do custom work to spread out the cost of their machines. Others did not mechanize as completely and hired some work done, while still others reduced machinery costs per acre through partnership arrangements, or co-operative purchase of machinery.

On both smaller and larger farms money invested in machinery represents a growing share of the total farm capital investment. Machinery costs (fuel and repairs) have become the largest item in operating costs. At the same time, the cost of hired help has decreased: in 1926 it represented one-fifth of total farm expenses, and by 1951 had shrunk to one-tenth. Interest on indebtedness has shrunk proportionately.

Livestock farms represent the greatest potential for future gains in mechanization. It is probable that to the extent that mechanization of field crop production has resulted in larger farms and made field crop production easier and less costly, livestock production may have been discouraged.

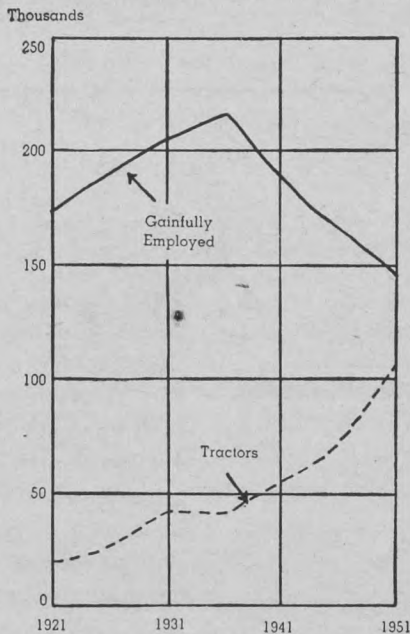
There is little reason to suppose that labor-saving machinery and time-saving techniques cannot be applied to livestock production. However, the livestock enterprise must be relatively

large to justify the expense of mechanization, just as the greatest gains of mechanization are realized on the larger grain farms. The trend toward larger livestock enterprises is already discernible. Livestock numbers are high, but fewer farms have livestock. Even with an increase in size of enterprises, cheaper machines that can be applied to livestock enterprises are urgently needed. The steady increase of farm electrification may have an influence in this direction; and it should be possible to harness electricity even more to the particular needs of the livestock producer.

As rural population declines, per farm costs go up for hospitals, roads, schools, telephones and electrification. A mechanized agriculture tends toward urbanization and commercialization, and becomes increasingly dependent on these services. Higher standards are demanded and there are fewer people to pay: costs per family therefore rise. In some areas, increased costs are balanced against increased income per farm, but this is not always the case. Sometimes shifts of population result in the disuse and final abandonment of some existing facilities.

A shift of farm population has an immediate effect on the towns and villages in the community area. Car and truck transportation give added farmer-mobility, which tends to leave the small towns to meet the day-to-day needs of farmers and the larger towns to provide for more periodic needs, including machinery and repairs, as well as personal and recreational services and specialty goods.

There is a recognizable increase in the demand for these recreational services. The increase in mechanization has resulted in more leisure time



As tractor numbers have gone up the number of people working on farms has moved in the opposite direction.

for the male members of the farm family, especially on straight grain farms. Farm children are not occupied with chores to the same extent that they used to be. The result is an increased demand for rural recreational opportunities.

Difficulties of servicing and repairing farm equipment are increased. The retail value of new machinery and equipment sales in Saskatchewan rose from \$22 million to \$98 million between 1945 and 1953. In 1951 the total value of equipment and machinery on Saskatchewan farms

was well over \$500 million, or an average of \$4,693 per farm. Saskatchewan has been, and is likely to continue to be, the major market for farm equipment in Canada.

Mechanization has progressed rapidly, but research has lagged far behind. In some research fields, such as crops, livestock, weeds, pests and disease control, research is well developed and findings are quickly made available to the farmer. In farm management and farm machinery, however, basic research and farmer acceptance of what is known, are both lagging. The adaptability of present-day machinery to the needs of farmers in various regions, the relative costs of alternative farming operations, and the relative returns to be gained from alternative farming enterprises are examples of problems that research people have not yet answered.

The economic and engineering requirements of good tillage, seeding and harvesting are not yet defined and a co-operative approach to the research problems is essential. Specialists in soils, field husbandry, chemistry, engineering and economics must therefore co-operate in conducting basic research in these fields.

If present credit, tenure and market conditions continue, further mechanization will be characterized by alternate periods of rapid and retarded expansion. The development of new machines and the ability of farmers to buy them will have a direct bearing on the increased mechanization of Saskatchewan's farms.

On the other hand, if credit becomes available for land purchase, if markets are stable and tenure conditions secure, one can expect continuous progress through mechanization, toward the goal of minimizing the physical work involved in farming, as well as increasing the productivity per worker.

Machines may be still larger, and so may farms. A continuing decline in the number of farms, with a compensating increase in farm size can be expected. At the same time, machinery costs are likely to become an ever greater part of total farm costs in the future. Farmers on large units should be in a better position to weather an economic recession than their smaller neighbors. The march of mechanization has made the quarter- and half-section farmer more vulnerable to the effects of an economic recession, than he ever was before.

Changes in mechanization on Saskatchewan farms have "shuffled the deck" in the last decade or two, and there is every possibility that it will be shuffled again in the future. V



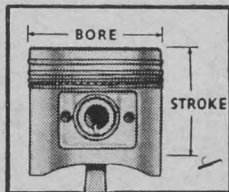
"... and then we met, suddenly, face to face. I guess the skunk had more reason to be frightened than I."

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LITERATURE ON REQUEST

RAIN BIRD SPRINKLER MFG. CO. (Canada) LTD.

VANCOUVER 4, B. C.

Intensive Use of Land and Irrigation

Peas for canning or freezing and beef cattle on irrigation pasture and in feedlot

TWO of the most intensely cultivated sections of farm land in Alberta lie in the rich irrigated farming district of southern Alberta. They make up the main farm at Broxburn, of the Broder Canning Co., which freezes, or cans, much of the vegetable crop of the district. The most remarkable feature of the farm, a 20-acre pasture carrying 80 Aberdeen-Angus cows and their calves, can best be seen in summer. But the same farm can show a feedlot carrying up to 1,400 head of cattle, 600 acres growing field peas for freezing, or a single giant stack of silage made from the vines. A look at these, or the many other projects at the farm, discloses some interesting farming ideas.

Manager Ed Bartlett would be the first to admit that all these ideas wouldn't be suitable for many smaller farms. In fact, any farm backed by the generous finances of a commercial firm can often indulge in programs unsuitable, or impracticable, under other farm conditions. But on a recent visit, The Country Guide saw a good many worthwhile ones. Some could be applied on many farms.

The farm is maintained primarily to supply Broder's factory with peas and other canning vegetables. The cattle use up farm by-products and provide manure to keep fertility high. In fact, straw is purchased each year for feedlot bedding, and the feedlot yields enough manure to cover 400 acres with 20 tons to the acre. That means a dressing for each field every third year.

The immense pea crop is threshed right on the farm and not a stalk of the vine is wasted. An 80-foot high elevator has been built of structural steel set on concrete piers, and the vines are carried up to be dropped into a stack for pea vine silage. Ed Bartlett estimates that the stack cures into about 10,000 tons of top grade silage each fall. And Harry Hargrave, senior animal husbandman at the Lethbridge Experimental Station, who has worked with beef cattle all his life, says that silage puts a bloom on cattle in the feedlot, not duplicated by any other feed.

Like grass silage, it has another value. Ed never feeds steers more than 12 pounds of grain a day, even when they near market finish. If the steers were on a self-feeder, they might eat up to 16 or 17 pounds. Harry Hargrave agreed that silage provides a way to lower the feed bill, by reducing the amount of the most expensive material going into the steers—grain.

Here is the Broder feedlot program. A field of corn is grown to the ear stage, by which time a group of steers will be nearly ready for the feedlot. They are sent into the corn field, and by the time they have finished the ears and begin to look around for something more, they are hustled into the feedlot. Cows are then turned into the corn to finish up the leaves and stalks during the winter.

Meanwhile, as the steers come to full feed, they are given a feed of dry hay first thing in the morning. In addition, they get silage in the feed bunks twice a day and grain twice a day. Each feed must be cleaned up before another one comes along, or the quantity is reduced slightly to avoid waste.

In April, when the lot was visited, buyers had already begun to drop into the farm to try to contract the steers. There is no substitute for well-bred cattle and a good feeding program, if you want buyers coming to the feedlot, says Ed. He refuses, however, to contract his steers ahead of time. He'll sell them when they are ready to go, and not before.

He noted with some regret, however, that there's more money in feeding "dogs" or low grade cattle, on today's market. He can prove it in his own yard. He pointed out a pen of vari-colored and sized steers that

The trouble with present-day education is that it covers the ground without cultivating anything in it.—Dr. E. N. Ferris.

came into the feedlot at less than 13 cents a pound, and were going out at 18 cents or so. Meanwhile, the top quality steers, bought at around 17 cents, were making little more than 20 cents on the way out. Ask him why most of his steers belong to the smaller-margin group, and he'll shrug his shoulders a little, and maybe admit, like many cattlemen, that he just likes to have the very best cattle in his lot.

A year ago, the company invested in 80 head of good Aberdeen-Angus cows. Meanwhile, they had prepared 20 acres of good pasture, a mixture of brome, orchard grass, creeping red fescue and alsike clover. Already a good stand on fertile soil, it was fertilized early with 100 pounds per acre of nitroprills, and divided into two sections, pastured alternately.

During the summer it was irrigated when necessary, fertilized twice more with a similar dressing of nitroprills,

and the 80 cows and their calves never left it. They thrived on that small plot.

This may be the heaviest production from irrigated pasture yet recorded in the Canadian west. Perhaps it isn't possible or practicable for most farms with available ditch or sprinkler water, but even half that many cows on the same acreage would be an enviable and probably very profitable achievement. V

Guernseys on A Quarter-Section

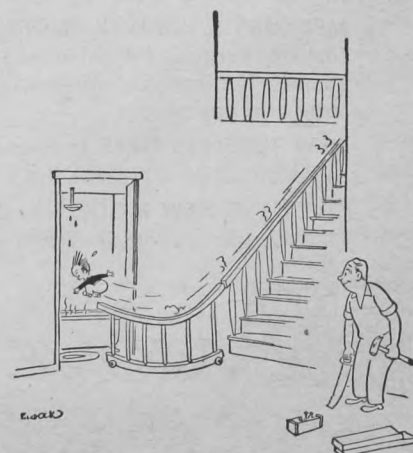
HARVEY STEVENS, the junior partner who is now taking over the management of the Golden Crescent Farm of J. R. Stevens and Son, west of Didsbury, Alberta, has always liked dairy cattle. He was a member of the dairy team representing Alberta in the 4-H judging competition at Toronto in 1942, and has seen how dairy cattle can keep a farm going after a hailed-out crop. He believes that the herd of 40 Guernseys, including 25 cows, is ideal for their quarter-section farm.

Since they are located in a hail belt, they have swung the farm entirely over to forage crops, buying all their grain and concentrates for a 16 per cent dairy ration. Pasture fields, mostly timothy and brome mixtures, are small, so the cows can be moved frequently from one to another. One field is seeded to oats, barley and rye, providing good fall pasture, and also early spring grazing. A few acres have been left in prairie sod for early spring grazing, too, while four other pasture fields complete the picture. Alfalfa and timothy are seeded on most of their hay land.

This winter Harvey has started to use a milk substitute for raising calves. He finds it considerably cheaper than feeding whole milk, and says it does as good a job. Calves get the cow's first milk, then are switched to the substitute, which comes as a powder for mixing with water, and are soon persuaded to take a pelleted feed as well twice a day.

Dairying means long, steady hours, but Harvey Stevens likes cattle so well that he doesn't mind.

Though Guernseys are not numerous in Alberta, the Stevens herd of pure-breds has been going for 30 years, and Harvey is as convinced now as his Dad has always been that they have a place. They are quiet to handle, produce a high test milk, and the Stevenses often sell breeding stock to herds with a low test. V



The Country Boy and Girl

LIKE a signal flashed across the land, our first warm weather tells the birds to build nests, Dad to take off storm windows, and Mother to begin house-cleaning. Does it tell you to bring out your marbles?

Here's a game to start off a party with a bang. Ask your guests to stand in a circle and when you drop a handkerchief they must all begin laughing uproariously and continue laughing until you pick up the handkerchief. The minute you pick it up, they must stop laughing and become sober-faced until you drop it again. Anyone who snickers must step out of the game. Sometimes try dropping the handkerchief then picking it up quickly, this adds to the fun.

Anne Sankey



Open Air Concert

by Maude L. Cain

Cricket tunes his fiddle up,
Bullfrog strikes his bass,
Young frogs sound the clarinets,
The moon lights up the place.

Curtain mist begins to rise,
Everything grows still,
Then we hear the soloist—
The lovely whippoorwill.

Mr. Spring

by Mary Grannan

LITTLE Annie Thimble opened her eyes on a new day. She sat up suddenly, and looked about her. She cocked her head to listen. The whole world seemed to be singing. The train that was rolling through the valley was singing. The soft wind that was playing among the branches of the still leafless maple tree was singing. Even the bird songs sounded different.

Annie herself was singing when she went into the kitchen to get her breakfast. "Good morning, Annie Thimble," her mother said. "You certainly sound cheerful this morning."

Annie nodded her pig-tailed head. "I know," she said. "I can't help feeling cheerful."

"Who would want to?" laughed her mother.

"No one, I guess," said Annie, "but I'm not the only one who's singing. The train is singing, the wind is singing, and would you believe it, Mum, I heard a song in the 'trot, trot, trot' of the milkman's horse."

"I believe it," said Mrs. Thimble.

"I wish I knew the words of their song," said the little girl. "I wish I

knew why they were all singing today."

Mrs. Thimble reached for the calendar that hung on the kitchen wall. She pointed to the date of the day. Annie looked at her mother, puzzled. The date meant nothing to Annie.

"It means, dear, that spring is here," said her mother.

"Spring is a nice person," said Annie Thimble. "He makes everyone happy. Mum, after breakfast I am going out to find Mr. Spring."

"Do you think you can, Annie?" smiled her mother, as she passed a steaming muffin to the eager little girl.

Annie nodded her pig-tailed head again. "Yes," she said, "because I'm going to look everywhere, and if I look everywhere, and ask everyone, and try very hard, there isn't any reason why I shouldn't find Mr. Spring. Mum, if I find him, may I bring him home with me?"

"Yes," said Mrs. Thimble, "if you find Mr. Spring, you may bring him home."

Right after breakfast Annie set out on her search. She looked in her own garden first, but she found no one. She went to the corner where the street-cleaner was sweeping. Annie knew the street-cleaner, and after bidding him "good morning," she asked him if he had seen Mr. Spring.

The old man laughed. "No, Annie Thimble," he said, "I feel him in my bones. I know he's around about, but I haven't seen him."

Annie thanked the street-cleaner, and went on her way. She would ask the policeman at the corner. He saw everyone who passed his way. It was possible that he might have seen Mr. Spring.

But he shook his head in answer to Annie's question. "He hasn't come this way, Annie," he said. "You're more likely to find him in the park where the tulips are sprouting and the trees are budding. I'd look for him there, if I were you."

Annie thanked the officer, and went dancing toward the park. When she neared the big iron gates, she stopped to listen. She heard music. It was gay music, and it was coming from beyond the clump of blue spruce by the fountain. Annie rounded the spruce, and looked at the old music-maker who stood grinding out the merry tunes from a hand organ. His eyes were brown, and twinkling. His hair was as dark as a blackbird's wing, and curled mischievously around a battered old hat. The hat had a feather. A little blue feather that stood up saucily.

When his song was finished, Annie went to him. "Are you Mr. Spring, please?" she asked politely.

"No," said the old man, "I'm Mr. Fenelli. My friends call me 'Tony'."

Annie's face fell. "My friends call me 'Annie Thimble,'" she said, "because that's my name. Tony, I thought you were Mr. Spring. I'm looking for him. My mother said if I found him, I might take him home with me. Have you seen him, Tony?"

The organ-grinder laughed, and his answer came in song:

*"By the water, by the fish wharf,
Just this morning I did see,
Mr. Moon, who owns the fish shop,
Mr. Moon, he said to me."*

*"Said, 'Come see what I have, Tony,
What the morning tide did bring;
He is sitting on the fish wharf,
I have named him 'Mr. Spring!'"*

*"Annie, go now to the fish shop,
You'll see Mr. Spring, alone,
Sitting gazing at the ocean,
He'll be glad to have a home."*

Annie Thimble danced about on one foot, excitedly.

Annie blew a kiss to Mr. Fenelli as she raced out of the park and down toward the wharf. When she arrived there she saw a little dog, sitting alone, and gazing out to sea. She hurried toward him, calling his name as she

ran. He turned and when he saw her, he gave two happy little barks and bounded toward her.

Mr. Moon came out of his shop. "Good morning, Mr. Moon," said Annie Thimble. "I've been looking everywhere for Mr. Spring. Tony told me I would find him here. My mother said if I found him I might take him home. But I never dreamed he would be a dear little dog. Do you mind if I take him home, Mr. Moon?"

The fish dealer shook his head. "I don't mind, but I don't think your mother will be expecting a dog."

"My mother is always ready for surprises," laughed Annie. "Come on, Mr. Spring."

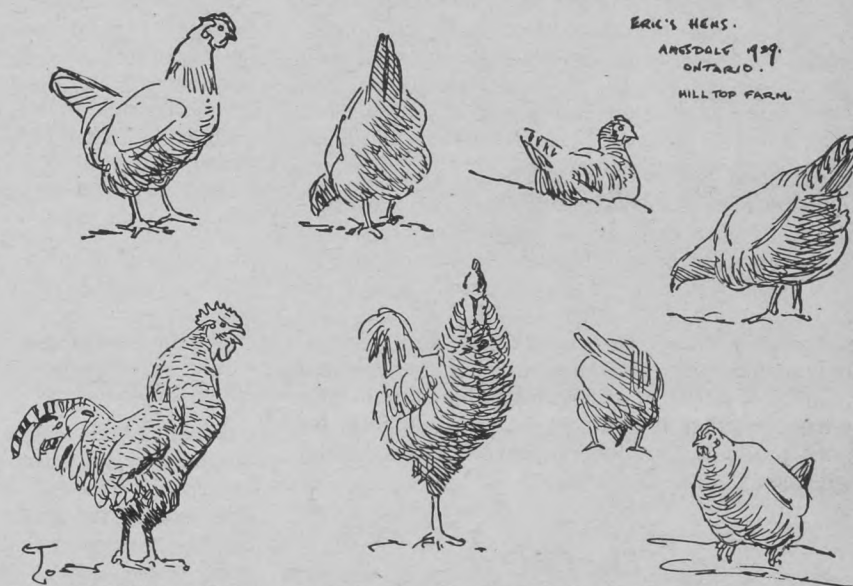
Mr. Spring went happily. Mr. Moon went to the telephone. He called Annie's mother, and told her that the little dog had come in on the breakers that morning, and because of the day, he had named him Mr. Spring. Mrs. Thimble laughed, and told Mr. Moon that she would stand by her bargain.

When a few minutes later Annie and the little dog came bounding into the kitchen, Mrs. Thimble was ready for them. "You found him, Annie?"

The little girl nodded her head. Spring had indeed come to Annie Thimble.

Sketch Pad Out-of-Doors

No. 39 in series—by CLARENCE TILLENIUS



ERIC'S HENS.
ARNDOLF 1939.
ONTARIO.
HILL TOP FARM

ASUMMER morning spent sketching hens in the henyard may not strike you as the ideal way of increasing your knowledge of drawing birds, but it is a pleasant one. The warm sunshine and lazy chatter of the birds is relaxing and there is nothing to distract you from drawing. Hens are not hard to draw; they move around more slowly than wild birds. You can learn a lot about bird anatomy from them.

First of all, if there is sunshine, notice how definite and simple are the shapes of the various sections. If you ever plucked a hen, you must have noticed that the feathers do not grow at random all over the bird, but grow in distinct patches or feather tracts. When the bird is at rest, the feathers overlap to form a smooth covering over its body. It is this definite distri-

bution of the feather tracts that give the characteristic pattern and appearance of the bird.

In the accompanying drawings, which are simple outline sketches, you will notice that a line or two usually is sufficient to indicate, let us say, the wing folding against the body or the way a rooster's tail feathers rise from the smoother feathers of the back. If you have time you will want to make more careful and detailed studies than these, since these are primarily notes of attitudes. If you are interested in birds, you should do some study of your own to become familiar with this feather distribution. It is most easily seen in young songbirds in the nest when the pinfeathers are half grown. This knowledge can help you a great deal in drawing any of the feathered kind—from hen to hummingbird.

THE Country GUIDE

with which is incorporated

THE NOR'-WEST FARMER and FARM and HOME
Serving the farmers of Western Canada Since 1882

VOL. LXXIV WINNIPEG, MAY, 1955 No. 5

Federal-Provincial Relations

ON the whole, the Ottawa meeting between the federal government and the provinces, which opened on April 26, achieved as much as could have been expected. Its principal purpose was to arrive at an agenda for a full-dress conference, to begin October 3. This purpose the meeting achieved by dividing the coming discussions into five areas. Principal among these is the problem of federal-provincial fiscal relations, centering around a renewal of the existing tax rental agreements, which expire March 31, 1957.

These federal-provincial get-togethers have, as their background, the growing complexity of modern living. They have their inspiration in the Rowell-Sirois Commission report of 1939; and their necessity grew directly out of the economic problems of the thirties and the finance problems of the war period.

What could not be done conveniently, or to the satisfaction of everyone, by an amendment to the constitution, could be done for periods of years by agreement between the federal and provincial governments: hence these conferences. Matters which one or more province put forward at the recent Ottawa meeting as desirable for discussion in October, included health insurance (supported by Ontario, Alberta, British Columbia and Newfoundland), federal aid to education (Manitoba), equal rates of taxation across Canada (British Columbia) and provision for the operation of farm products marketing legislation on a nation-wide basis (Saskatchewan). All were agreed as to the urgency of the unemployment problem, and conferences will be held prior to October to deal with federal-provincial co-operation in this field. It was significant that the need for heavy defense expenditures was put forward as the principal reason why the federal government could not be more liberal in its arrangements with the provinces.

The growth of democracy is necessarily slow and troubled, whether it be in the affairs of a local school area, or of the United Nations. Basically, what democratic nations are continually testing out is the extent to which interdependence and co-operation may be encouraged and applied to human affairs, without sacrificing the essential qualities of initiative, enterprise and good will. This is true, whether the subject be price supports for farm products, or federal-provincial tax rental agreements.

The CBC

SINCE the inception of national broadcasting, and particularly since the coming of television, the Canadian Broadcasting Corporation has been subjected to a continuous barrage of criticism. We do not refer to complaints about individual programs, because these represent individual reactions, opinions and prejudices. We refer to the constant demand by private stations, for more freedom and less regulation.

Our view is that the establishment of the Canadian Broadcasting Corporation, while at the same time permitting the operation of private radio stations, has preserved for Canadians one of the most useful freedoms of this day and age. By this we mean freedom from over-commercialism. It has given to Canadians the privilege of listening to a very large number of programs that are of high quality, either from an entertainment, or a cultural, point of view. What is particularly important in this connection is that the existence of a national system provides these programs for all Canadians.

We do not think that it is going too far to say that it would be impossible for any system of private broadcasting stations in Canada to provide the substantial number of the programs now made available by the CBC.

Since the advent of television this restiveness under control has been increased. The opposition in parliament has taken advantage of it. The CBC is accused of being autocratic, when, actually, it is directly responsible to parliament.

Only one criticism that we have read appeared to us as having some justification. This was offered last month in Vancouver by Dr. Marcus Long, associate professor of philosophy at the University of Toronto, who is reported as having said that private stations are "getting away with murder because the CBC is afraid to enforce its own regulations; afraid that it might look like political pressure."

An independent regulatory board is now being suggested for all radio and TV, because of an alleged similarity between the railway situation and that of broadcasting in this country. Fortunately, the government has no intention whatever of changing the present system of control and the clear, direct responsibility of the CBC to parliament. As to the suggested independent regulatory commission, the minister, Dr. McCann, made it clear that railway operation and broadcasting service are two entirely different propositions. "The majority of private stations," he said, "are affiliated with the CBC networks and receive service from the corporation at public expense. In addition they get a distribution of the revenues that the national system gets for nationwide advertising . . ."

The minister is to be commended for having stated the position of the government so clearly and unequivocally.

Paying for Research

A LATE April report from the Laboratory of Plant Pathology in Winnipeg, called attention to the possibility of another severe rust infection this year, as a result of the rapid development of stem rust of wheat and oats in southern Texas and northeastern Mexico earlier in the season. Other reminders of the danger of severe losses from disease bring to mind warnings previously given by pathologists, that lack of sufficient research is the principal stumbling block in the way of crop protection from this danger.

Not very long ago a responsible and highly placed farm scientist in western Canada informed *The Country Guide* that, given sufficient men and money, scientists could produce, in due course, strains or varieties of wheat which, between them, would carry resistance to every known race of wheat stem rust.

When asked what amount of money and what numbers of men would be required, he did not know. Nevertheless, the statement is important, inasmuch as the threat is at least a potential one, and the statement that it could be countered was unequivocal.

Wheat stem rusts, despite the size and economic importance of the wheat crop in Canada, are but one comparatively small area in the immense range of opportunity awaiting development by farm science. It is true that many farmers, for lack of finance, cannot apply what they know would be to their advantage. Similarly, discoveries in the field of animal science would be of little or no value to the straight grain producer. Add, if you like, the fact that existing extension services are inadequate to take to the farmer more than a portion of the information presently available, and there still remains a constant and pressing need for more agricultural research.

In Manitoba, recently, there has been some recurrence of the suggestion made earlier that farmers themselves should contribute to the discovery of new knowledge applicable on farms. The other day there came to hand a report from Australia, to the effect that the wheat growers of West Australia alone, had contributed more than £26,000 to a

soil fertility research fund. This substantial sum, it is interesting to note, came from a voluntary levy, by more than 90 per cent of the growers, which amounted to only one-quarter of an Australian penny (less than half a cent) per bushel, on wheat sold from the last harvest. A similar contribution based on an average crop of wheat and coarse grains in the three prairie provinces would produce \$3.5 million, or better. It may be argued, and rightly, that this amount of money could not be used in any one year. Nevertheless, one-fortieth of a cent per bushel, or one cent for each 40 bushels of grain produced, would yield in the neighborhood of \$100,000, which would be more than three times as much as was offered to the prairie universities, by the Canada Department of Agriculture, shortly after Race 15B of stem rust became a serious threat.

Many farmers will no doubt feel that governments should bear the entire responsibility for the cost of research. We doubt the validity of this argument. In any case, it would be to the advantage of agriculture in Canada if our farm organizations were to examine the whole question very carefully, and act accordingly.

Cultivating Good Will

THE time has passed when the public can be expected to buy what is not advertised. It may be argued that some of the money that is spent for advertising is not well spent, but the fact remains that the merchant who goes out among the people and tells them about his products, sells more than the individual who merely sits and waits. Farmers have felt some justification, perhaps, in remaining with the waiting group, because their products usually pass through two or more hands before they reach the consumer. This philosophy is not nearly as good today as it was years ago. It is becoming better understood that unless the consumer buys today what the farmer has delivered yesterday, or very recently, there will either be no market, or a smaller one, for the farmer's product tomorrow.

Five years ago, when the Canadian dairy industry was feeling very badly hurt by the development of margarine as a comparatively low-priced, but nutritious food, the industry began to realize the importance of good public relations. The Dairy Farmers of Canada, in co-operation with members of the National Dairy Council, initiated the June set-aside. This involved a voluntary contribution of one cent per pound butterfat from dairy producers, for the month of June, with which to develop an advertising and general public relations program on behalf of dairy products. The program has developed fairly slowly, and this year the hope is that a total of \$400,000 may be secured.

The fruit growers of the Okanagan Valley in British Columbia, who have been advertising the quality of their products for an even longer period, have found that the watch-and-wait method of selling perishable farm products does not pay. In recent years the Canadian Council of Beef Producers have developed the idea of a voluntary levy of five cents per head of livestock, with which to finance a program designed to encourage the consumption of red meats, particularly beef. This proposal has suffered a rather serious set-back during the last year or so, due largely to misunderstandings between the Council and other farm organizations. This difficulty will, however, probably right itself in time, and the producers of meat animals will see the advantage of joining together to serve their common purposes by advising the consumer about the food values of meats.

Meanwhile, the June set-aside is close at hand. The Dairy Farmers of Canada believe that the program, as undertaken so far, has paid off in sales of dairy foods. Canada's population is growing, and there are some hundreds of thousands of new mouths to feed each year. This means potential customers for dairy foods, who are continuously in need of education as to the values of these foods. Almost anything one can think of today costs something; and advertising the value of farm products to consumers is no exception.



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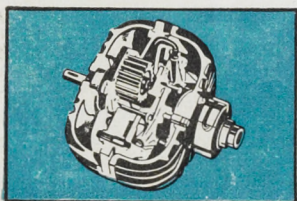
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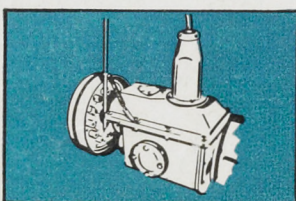
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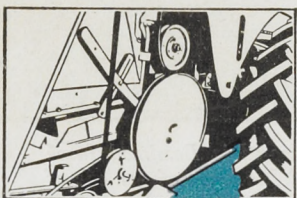
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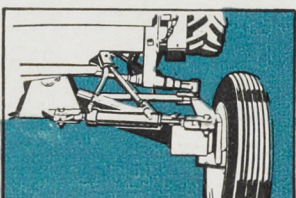
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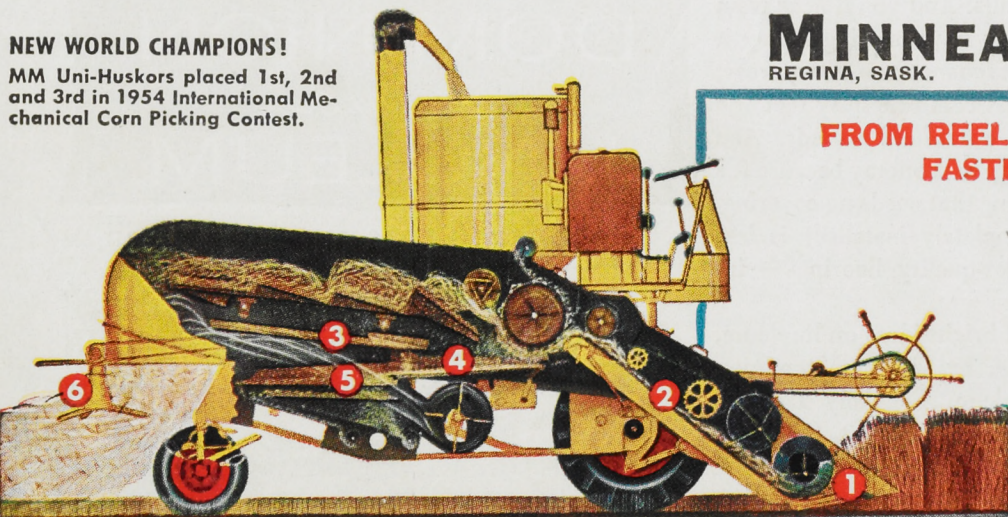
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